



STIC Search Report

Biotech-Chem Library

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TO: Satyanarayana Gudibande
Location: 3a20 / 3c18
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Art Unit: 1654
Phone: 571-272-8146
Serial Number: 10 / 078247

From: Jan Delaval
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Phone: 571-272-2504

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Search Notes

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L57 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:77534 HCAPLUS
 DN 138:142467
 TI Compositions and methods for enhancing drug delivery across and into
 ocular tissues
 IN Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P.
 Leo; Sista, Lalitha V. S.; Kirschberg, Thorsten A.
 PA Cellgate, Inc., USA
 SO U.S. Pat. Appl. Publ., 64 pp., Cont.-in-part of U.S. Ser. No. 792,480.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| PI | US 2003022831 | A1 | 20030130 | US 2002-83960 | 20020225 <-- |
| | US 6593292 | B1 | 20030715 | US 2000-648400 | 20000824 <-- |
| | US 2002127198 | A1 | 20020912 | US 2001-792480 | 20010223 <-- |
| | US 6669951 | B2 | 20031230 | | |
| PRAI | US 1999-150510P | P | 19990824 | <-- | |
| | US 2000-648400 | A2 | 20000824 | <-- | |
| | US 2001-792480 | A2 | 20010223 | <-- | |
| OS | MARPAT 138:142467 | | | | |

AB This invention provides compns. and methods for enhancing delivery of
 drugs and other agents across epithelial tissues, including into and
 across ocular tissues and the like. The compns. and methods are also
 useful for delivery across endothelial tissues, including the blood brain
 barrier. The compns. and methods employ a delivery-enhancing transporter
 that has sufficient guanidino or amidino side chain moieties to enhance
 delivery of a compound conjugated to the reagent across one or more layers
 of the tissue, compared to the non-conjugated compound. The
 delivery-enhancing polymers include, for example, polyarginine mols. that
 are preferably between about 6 and 25 residues in length.

IT 491875-87-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (delivery-enhancing transporters for drug delivery across and into
 ocular tissues)

IT 328234-41-9P 328234-42-0P 452337-48-3P

452337-51-8P 455282-35-6P 455282-36-7P

457906-55-7P 457906-67-1P 491875-89-9P

491875-91-3P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (delivery-enhancing transporters for drug delivery across and into
 ocular tissues)

IT 491875-87-7

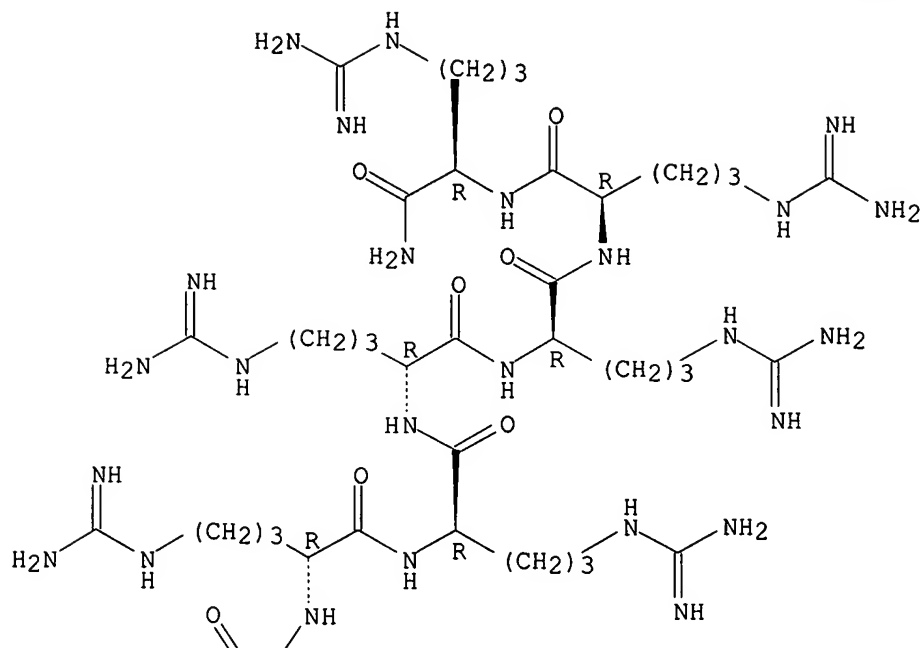
RL: RCT (Reactant); RACT (Reactant or reagent)
 (delivery-enhancing transporters for drug delivery across and into
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RN 491875-87-7 HCAPLUS

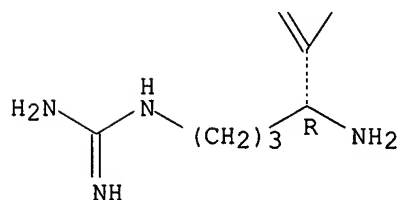
CN D-Argininamide, D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-
 arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L57 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:696457 HCAPLUS
 DN 137:237728
 TI Peptide conjugates for enhancing drug delivery across and into epithelial tissues
 IN Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P. Leo; Sista, Lalitha V. S.; Kirschberg, Thorsten A.
 PA Cellgate, Inc., USA
 SO U.S. Pat. Appl. Publ., 80 pp., Cont.-in-part of U.S. Ser. No. 648,400.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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 WO 2002069930 A1 20020912 WO 2002-US5829 20020225 <--
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 US 2003083256 A1 20030501 US 2002-209421 20020730 <--
 US 6759387 B2 20040706
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 PRAI US 1999-150510P P 19990824 <--
 US 2000-648400 A2 20000824 <--
 US 2001-792480 A 20010223 <--
 WO 2002-US5804 W 20020225
 WO 2002-US5829 W 20020225
 OS MARPAT 137:237728
 AB This invention provides compns. and methods for enhancing delivery of
 drugs and other agents across epithelial tissues, including the skin,
 gastrointestinal tract, pulmonary epithelium, ocular tissues and the like.
 The compns. and methods are also useful for delivery across endothelial
 tissues, including the blood brain barrier. The compns. and methods
 employ a delivery enhancing transporter that has sufficient guanidino or
 amidino side-chain moieties to enhance delivery of a compound conjugated to
 the reagent across one or more layers of the tissue, compared to the
 non-conjugated compound. The delivery-enhancing polymers include, for
 example, poly-arginine mols. that are preferably between about 6 and 25
 residues in length. E.g., biotinylated polymers of D-arginine were prepared
 and their penetration into the skin of nude mice studied.
 IT 328234-41-9P 328234-42-0P 455282-32-3P
 457906-19-3P
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)
 (peptide conjugates for enhancing drug delivery across and into
 epithelial tissues)
 IT 165893-48-1 216584-13-3

IT 457906-65-9P

(peptide conjugates for enhancing drug delivery across and into epithelial tissues)

452337-56-3P 455282-15-2P 455282-35-6P

457906-55-7P 457906-67-1P

(peptide conjugates for enhancing drug delivery across and into epithelial tissues)

IT 328234-41-9P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

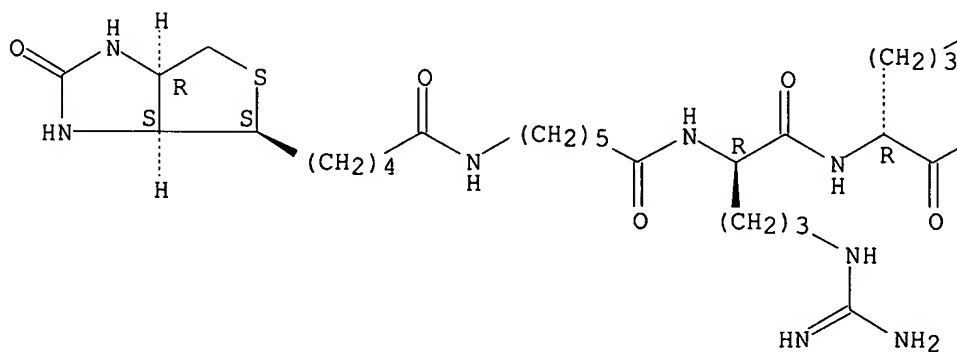
(peptide conjugates for enhancing drug delivery across and into epithelial tissues)

RN 328234-41-9 HCAPLUS

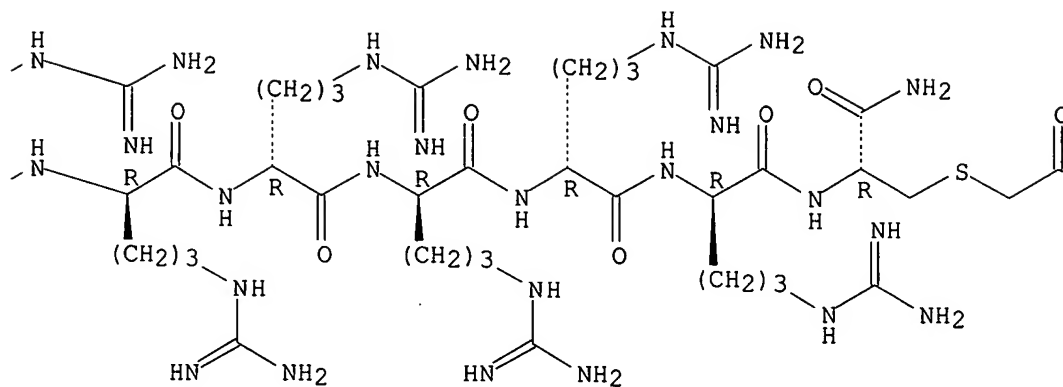
CN Cyclosporin A, 6-[(2S,3R,4R,6E)-3-{(mercaptoacetyl)oxy}-4-methyl-2-(methylamino)-6-octenoic acid]-, (6→8')-thioether with
N2-[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]-D-arginyln-D-arginyl-D-arginyl-D-arginyl-L-cysteinamide (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

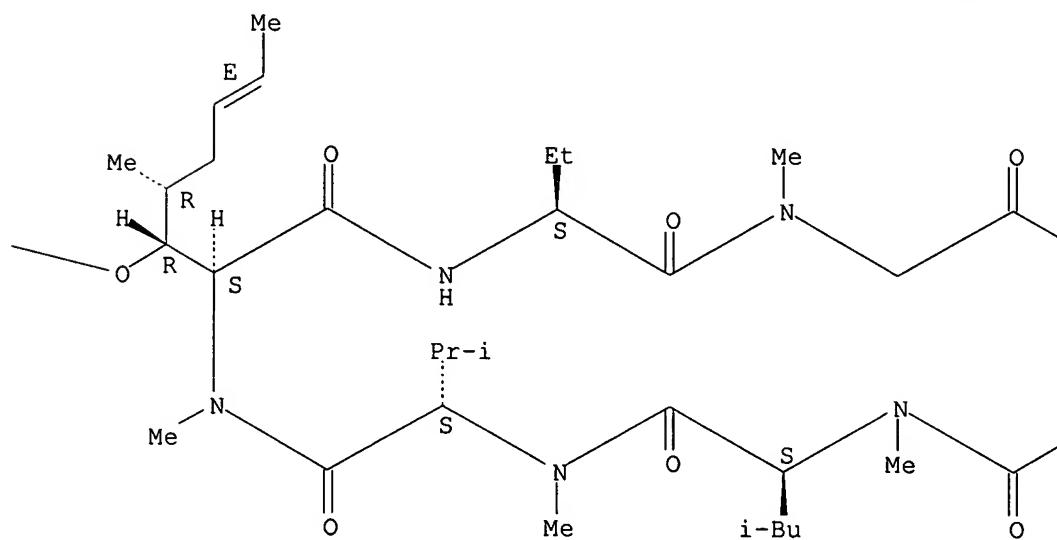
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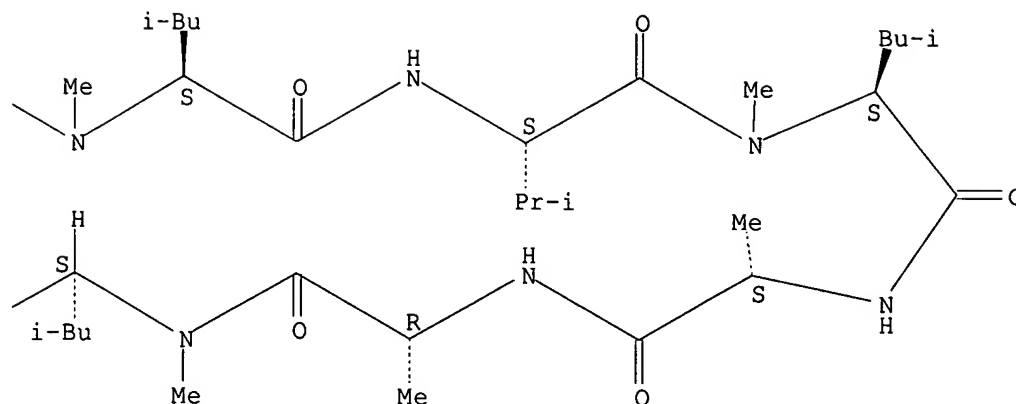
PAGE 1-B



PAGE 1-C



PAGE 1-D



L57 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:675821 HCAPLUS
 DN 137:222033
 TI Compositions and methods for enhancing drug delivery across and into
 ocular tissues
 IN Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P.
 Leo; Sista, Lalitha Vs; Kirschberg, Thorsten A.
 PA Cellgate, Inc., USA
 SO PCT Int. Appl., 119 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| | US 6669951 | B2 | 20031230 | | |
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| | R: | | | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | |
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| PRAI | US 2001-792480 | A | 20010223 | <-- | |
| | US 1999-150510P | P | 19990824 | <-- | |
| | US 2000-648400 | A2 | 20000824 | <-- | |
| | WO 2002-US5804 | W | 20020225 | | |

OS MARPAT 137:222033

AB Compns. and methods for enhancing delivery of drugs, diagnostic and other agents across epithelial tissues, including into and across ocular tissues and blood-brain barrier are provided. The compns. and methods employ a delivery enhancing transporter that has sufficient guanidino or amidino side chain moieties to enhance delivery of a compound conjugated to the reagent across one or more layers of the tissue, compared to the non-conjugated compound. The delivery-enhancing polymers include, for example, poly-arginine mols. that are preferably between about 6 and 25 residues in length. For example, a series of structural characteristics including sequence length, amino acid composition, and chirality that influence the ability of Tat49-57 to enter cells is identified. These characteristics provided the blueprint for the design of a series of novel peptoids, of which 17 members were synthesized and assayed for cellular uptake. This research established that the peptide backbone and hydrogen bonding along that backbone are not required for cellular uptake, that the guanidino head group is superior to other cationic subunits, and most significantly, that an extension of the alkyl chain between the backbone and the head group provides superior transporters. In addition to better uptake performance, these novel peptoids offer several advantages over Tat49-57 including cost-effectiveness, ease of synthesis of analogs, and protease stability. These features along with their significant water solubility (>100 mg/mL) indicate that these novel peptoids could serve as effective transporters for the mol. delivery of drugs, drug candidates, and other agents into cells.

IT 153127-44-7DP, fluorescein conjugate 216584-13-3DP, fluorescein conjugate

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

IT 455282-28-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

IT 123251-89-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

IT 452337-48-3P 452337-52-9P 452337-56-3P

455282-15-2P 455282-30-1P 455282-31-2P

455282-33-4P 455282-35-6P 455282-36-7P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

IT 216584-13-3D, cyclosporin A conjugate

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

IT 153127-44-7DP, fluorescein conjugate

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

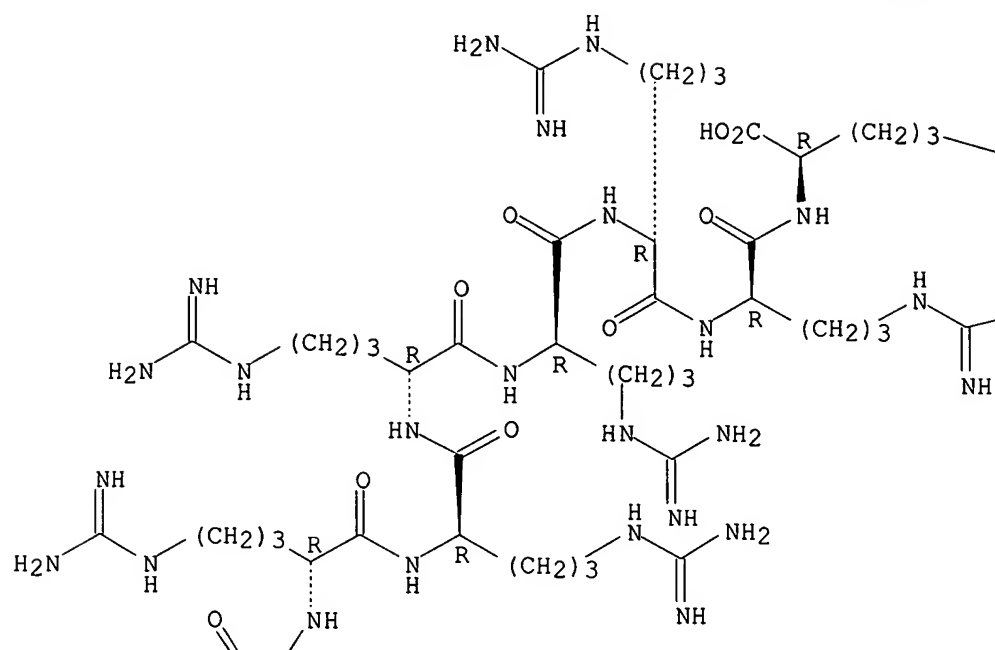
(drug conjugates with peptide transporter containing amidino or guanidino moieties for enhanced delivery across epithelium)

RN 153127-44-7 HCAPLUS

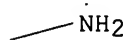
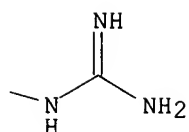
CN D-Arginine, D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

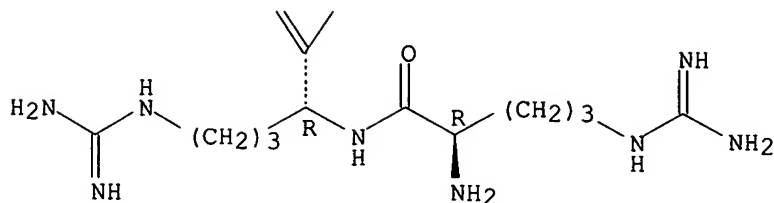
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PAGE 1-B



PAGE 2-A



RETABLE

| Referenced Author | Year | VOL | PG | Referenced Work | Referenced |
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jan delaval - 7 september 2006

| (RAU) | (RPY) | (RVL) | (RPG) | (RWK) | File |
|--------------|-------|-------|-------|-----------------|---------|
| Bretton, R | 2000 | | | US 6089234 A | |
| Cellgate Inc | 2001 | | | WO 0113957 A2 | HCAPLUS |
| Katz | 1998 | | | US 5716614 A | HCAPLUS |
| Rothbard | 2000 | 6 | 1253 | Nature Medicine | HCAPLUS |
| Skubitz | 2000 | | | US 6013628 A | HCAPLUS |

L57 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:657914 HCAPLUS

DN 137:206525

TI Transporters comprising spaced arginine moieties

IN Wender, Paul A.; Rothbard, Jonathan B.; Wright, Lee; Kreider, Erik L.; Vandeusen, Christopher L.

PA Cellgate, Inc., USA; Univ. Leland Stanford Junior

SO PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|--|----------|-----------------|--------------|
| PI | WO 2002065986 | A2 | 20020829 | WO 2002-US4491 | 20020214 <-- |
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| | US 2003032593 | A1 | 20030213 | US 2002-78247 | 20020214 <-- |
| | EP 1401473 | A2 | 20040331 | EP 2002-742477 | 20020214 <-- |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | |
| | JP 2005508832 | T2 | 20050407 | JP 2002-565547 | 20020214 <-- |
| PRAI | US 2001-269627P | P | 20010216 | <-- | |
| | WO 2002-US4491 | W | 20020214 | | |

OS MARPAT 137:206525

AB The present invention provides compns. and methods for enhancing transport of biol. active compds. across biol. membranes and across and into animal epithelial or endothelial tissues. The composition includes a biol. active agent and a transport moiety. The transport moiety includes a structure selected from the group consisting of (ZYZ)nZ, (ZY)nZ, (ZYY)nZ and (ZYYY)nZ. Subunit "Z" is L-arginine or D-arginine, and subunit "Y" is an amino acid that does not comprise an amidino or guanidino moiety. Subscript "n" is an integer ranging from 2 to 10. The method for enhancing transport involves the administration of the aforementioned composition

IT 452337-48-3P 452337-52-9P 452337-56-3P

RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(cell-membrane drug transporters comprising spaced arginine moieties)

IT 452337-26-7P 452337-29-0P 452337-30-3P
 RL: PAC (Pharmacological activity); PNU (Preparation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (cell-membrane drug transporters comprising spaced arginine moieties)

IT 165893-48-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (cell-membrane drug transporters comprising spaced arginine moieties)

IT 452337-48-3P
 RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
 (cell-membrane drug transporters comprising spaced arginine moieties)

RN 452337-48-3 HCAPLUS

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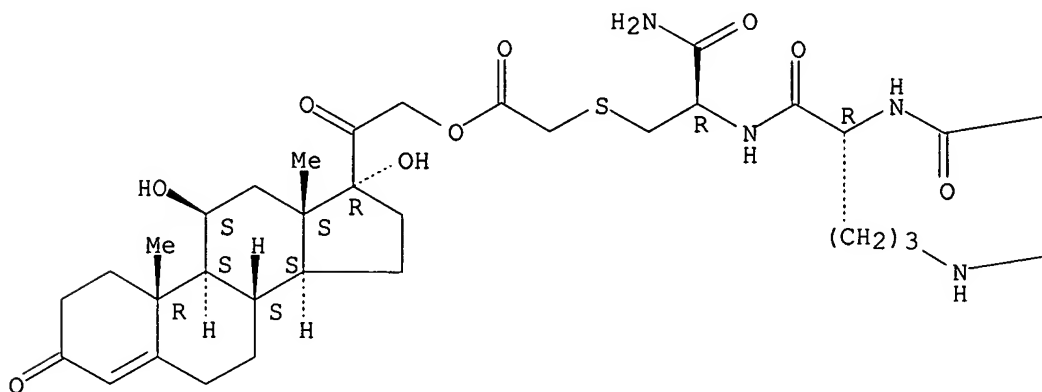
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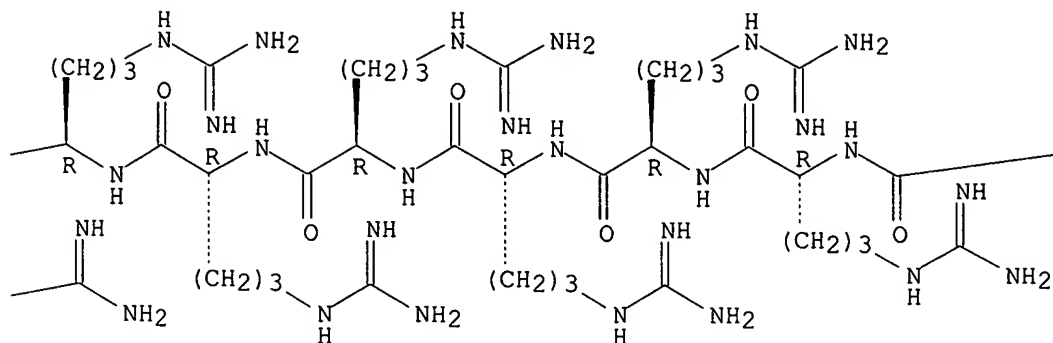
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Absolute stereochemistry.

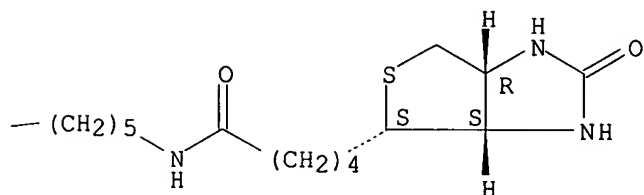
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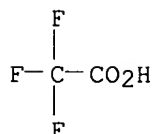
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CM 2

CRN 76-05-1

CMF C2 H F3 O2



L57 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:515124 HCAPLUS
 DN 137:210414
 TI Arginine-rich molecular transporters for drug delivery: role of backbone spacing in cellular uptake
 AU Rothbard, Jonathan B.; Kreider, Erik; VanDeusen, Christopher L.; Wright, Lee; Wylie, Bryan L.; Wender, Paul A.
 CS CellGate Inc., Sunnyvale, CA, 94085, USA
 SO Journal of Medicinal Chemistry (2002), 45(17), 3612-3618
 CODEN: JMCMAR; ISSN: 0022-2623
 PB American Chemical Society
 DT Journal
 LA English
 AB Short oligomers of arginine, either alone or when conjugated to therapeutic agents or large biopolymers, have been shown to cross readily

a variety of biol. barriers (e.g., lipid bilayers and epithelial tissue). Mol. modeling suggests that only a subset of the side chain guanidinium groups of these transporters might be required for transport involving contact with a common surface such as a plasma membrane or cell surface receptor. To evaluate this hypothesis, a series of decamers were prepared that incorporated seven arginines and three nonarginine residues. Several of these mixed decamers were comparable to the all arginine decamer in their ability to enter cells. More significantly, these decamers containing seven arginines performed almost without exception better than hepta-arginine itself, suggesting that spacing between residues is also important for transport. The influence of spacing was more fully evaluated with a library of oligomers incorporating seven arginines separated by one or more nonconsecutive, non- α -amino acids. This study led to the identification of a new series of highly efficient mol. transporters.

IT 452337-26-7P 457633-17-9P

RL: PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(arginine-rich mol. transporters for drug delivery: role of backbone spacing in cellular uptake)

IT 452337-26-7P

RL: PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

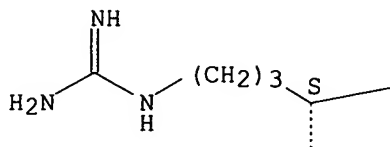
(arginine-rich mol. transporters for drug delivery: role of backbone spacing in cellular uptake)

RN 452337-26-7 HCAPLUS

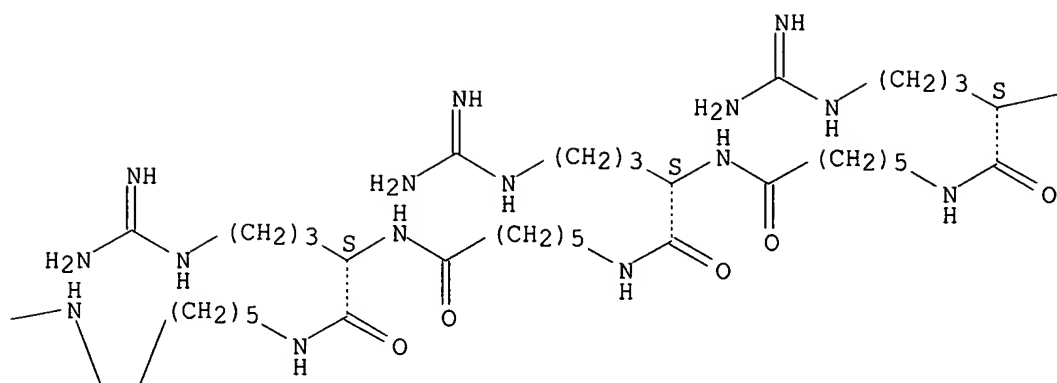
CN L-Argininamide, N2-[6-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen)-5-yl)amino]thioxomethyl]amino]-1-oxohexyl]-L-arginyl-6-aminohexanoyl-L-arginyl-6-aminohexanoyl-L-arginyl-6-aminohexanoyl-L-arginyl-6-aminohexanoyl-L-arginyl-6-aminohexanoyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

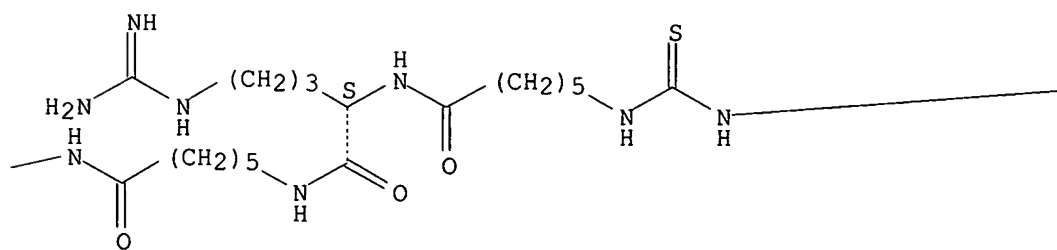


PAGE 1-B

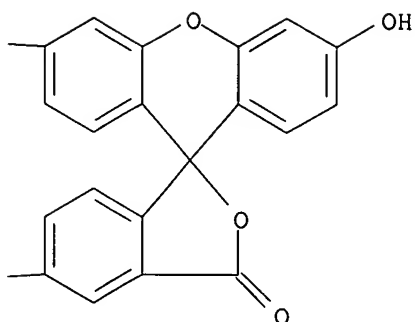


PAGE 1-C

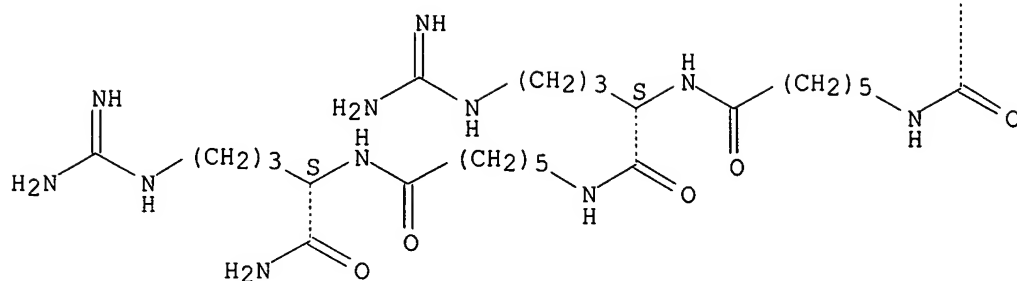
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PAGE 1-D



PAGE 2-A



PAGE 2-B



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Bellet-Amalric, E | 2000 | 1467 | 131 | Biochim Biophys Acta | HCAPLUS |
| Dathe, M | 1999 | 1462 | 71 | Biochim Biophys Acta | HCAPLUS |
| Derossi, D | 1994 | 269 | 10444 | J Biol Chem | HCAPLUS |
| Fischer, P | 2001 | 12 | 825 | Bioconjugate Chem | HCAPLUS |
| Frankel, A | 1988 | 55 | 1189 | Cell | HCAPLUS |
| Futaki, S | 2001 | 276 | 5836 | J Biol Chem | HCAPLUS |
| Humphrey, W | 1996 | 14 | 33 | J Mol Graph | HCAPLUS |
| Kale, L | 1999 | 151 | 283 | J Comput Phys | HCAPLUS |
| Kown, M | 2001 | 121 | 971 | J Thorac Cardiovasc | HCAPLUS |
| Kown, M | 2001 | 71 | 1542 | Transplantation | HCAPLUS |
| Lebleu, B | 1996 | 14 | 109 | Trends Biotechnol | HCAPLUS |
| Mackerell, A | 1998 | 102 | 3586 | J Phys Chem | HCAPLUS |
| Magzoub, M | 2001 | 1512 | 77 | Biochim Biophys Acta | HCAPLUS |
| Mitchell, D | 2000 | 156 | 318 | J Pept Res | HCAPLUS |

| | | | | | |
|-------------|------|------|-------|----------------------|---------|
| Rothbard, J | 2000 | 6 | 1253 | Nat Med | HCAPLUS |
| Schwartz, J | 2000 | 2 | 162 | Curr Opin Mol Ther | HCAPLUS |
| Schwarze, S | 1999 | 285 | 1569 | Science | HCAPLUS |
| Shai, Y | 1999 | 1462 | 55 | Biochim Biophys Acta | HCAPLUS |
| Uemura, S | 2000 | 102 | 2629 | Circulation | HCAPLUS |
| Wender, P | 2000 | 97 | 13003 | Proc Natl Acad Sci U | HCAPLUS |

L57 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:2517 HCAPLUS

DN 137:237523

TI Molecular transporters for peptides: delivery of a cardioprotective ϵ PKC agonist peptide into cells and intact ischemic heart using a transport system, R7

AU Chen, Leon; Wright, Lee R.; Chen, Che-Hong; Oliver, Steven F.; Wender, Paul A.; Mochly-Rosen, Daria

CS Department of Molecular Pharmacology, Stanford University School of Medicine, Stanford, CA, 94305-5174, USA

SO Chemistry & Biology (2001), 8(12), 1123-1129
CODEN: CBOLE2; ISSN: 1074-5521

PB Elsevier Science Ltd.

DT Journal

LA English

AB Background: Recently, we reported a novel oligoguanidine transporter system, polyarginine (R7), which, when conjugated to spectroscopic probes (e.g., fluorescein) and drugs (e.g., cyclosporin A), results in highly water-soluble conjugates that rapidly enter cells and tissues. We report herein the preparation of the first R7 peptide conjugates and a study of their cellular and organ uptake and functional activity. The octapeptide ψ E RACK was selected for this study as it is known to exhibit selective ϵ protein kinase C isoenzyme agonist activity and to reduce ischemia-induced damage in cardiomyocytes. However, ψ E RACK is not cell-permeable. Results: Here we show that an R7- ψ E RACK conjugate readily enters cardiomyocytes, significantly outperforming ψ E RACK conjugates of the transporters derived from HIV Tat and from Antennapedia. Moreover, R7- ψ E RACK conjugate reduced ischemic damage when delivered into intact hearts either prior to or after the ischemic insult. Conclusions: Our data suggest that R7 converts a peptide lead into a potential therapeutic agent for the ischemic heart.

IT 165893-48-1

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of cardioprotective ϵ PKC agonist peptide into cells and intact ischemic heart using polyarginine transport system)

IT 165893-48-1

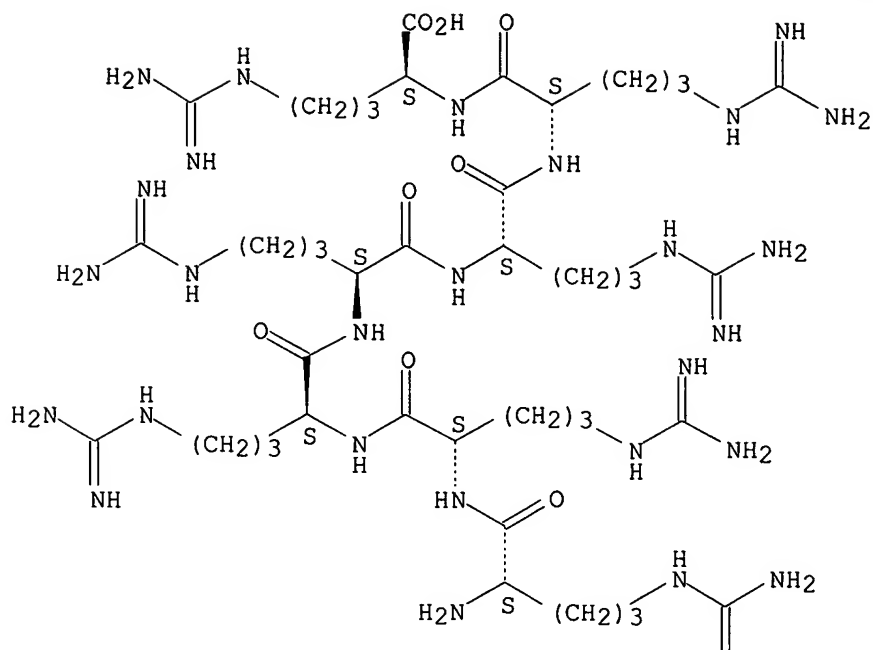
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of cardioprotective ϵ PKC agonist peptide into cells and intact ischemic heart using polyarginine transport system)

RN 165893-48-1 HCAPLUS

CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Carr, D | 1992 | 267 | 13376 | J Biol Chem | HCAPLUS |
| Chen, C | 1999 | 96 | 12784 | Proc Natl Acad Sci U | HCAPLUS |
| Derossi, D | 1994 | 269 | 10444 | J Biol Chem | HCAPLUS |
| Dorn, G | 1999 | 96 | 12798 | Proc Natl Acad Sci U | HCAPLUS |
| Gray, M | 1997 | 272 | 30945 | J Biol Chem | HCAPLUS |
| Johnson, J | 1996 | 271 | 24962 | J Biol Chem | HCAPLUS |
| Koch, W | 1993 | 268 | 8256 | J Biol Chem | HCAPLUS |
| Lester, L | 1997 | 94 | 14942 | Proc Natl Acad Sci U | HCAPLUS |
| Lindgren, M | 2000 | 21 | 99 | Trends Pharmacol Sci | HCAPLUS |
| Mitchell, D | 2000 | 56 | 318 | J Peptide Res | HCAPLUS |
| Mochly-Rosen, D | 2000 | 86 | 1173 | Circ Res | HCAPLUS |
| Mochly-Rosen, D | 1991 | 266 | 14866 | J Biol Chem | HCAPLUS |
| Mochly-Rosen, D | 1991 | 88 | 3997 | Proc Natl Acad Sci U | HCAPLUS |
| Murry, C | 1986 | 74 | 1124 | Circulation | MEDLINE |
| Rabanal, F | 1996 | 37 | 1347 | Tetrahedron Lett | HCAPLUS |
| Ron, D | 1995 | 270 | 24180 | J Biol Chem | HCAPLUS |
| Rosenmund, C | 1994 | 368 | 853 | Nature | HCAPLUS |
| Rothbard, J | 2000 | 16 | 1253 | Nature Med | HCAPLUS |
| Schwarze, S | 1999 | 285 | 1569 | Science | HCAPLUS |
| Souroujon, M | 1998 | 16 | 919 | Nature Biotechnol | HCAPLUS |

| | | | | | |
|-------------------|------|-----|-------|-----------------|---------|
| Stauffer, T | 1997 | 36 | 9388 | Biochemistry | HCAPLUS |
| Sternson, L | 1987 | 507 | 19 | Ann NY Acad Sci | MEDLINE |
| Strauss, E | 1999 | 285 | 1466 | Science | HCAPLUS |
| Vijayaraghavan, S | 1997 | 272 | 4747 | J Biol Chem | HCAPLUS |
| Vives, E | 1997 | 272 | 16010 | J Biol Chem | HCAPLUS |

L57 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:513877 HCAPLUS

DN 136:268064

TI L-Arginine polymer mediated inhibition of graft coronary artery disease after cardiac transplantation

AU Kown, Murray H.; van der Steenhoven, Tim; Uemura, Shiro; Jahncke, Christina L.; Hoyt, Grant E.; **Rothbard, Jonathon B.**; Robbins, Robert C.

CS Department of Cardiothoracic Surgery, Stanford University School of Medicine, Stanford, CA, 94025, USA

SO Transplantation (2001), 71(11), 1542-1548

CODEN: TRPLAU; ISSN: 0041-1337

PB Lippincott Williams & Wilkins

DT Journal

LA English

AB Nitric oxide (NO) limits the development of graft coronary artery disease (GCAD) in transplanted hearts. We hypothesized that L-arginine polymers administered to cardiac allografts ex vivo would translocate across vascular cellular membranes, upregulate inducible nitric oxide synthase (iNOS) production of NO, and inhibit the development of GCAD. Three groups of PVG rat donor hearts were incubated with either 0.8 mL phosphate-buffered saline, (PBS, n=12) or 50 μ M L-arginine polymer solns. of length five (R5, n=12) or nine (R9, n=12) prior to heterotopic transplantation into ACI recipients. Graft vessels were scored at POD 60 and 90 for percentage luminal narrowing (%LN), intima to media ratio (I/M), and percentage affected vessels (%AV). Translocation efficiency was determined by treatment with biotinylated polymers. NO production of treated aortic segments was determined in vitro by Griess reaction. Translocation efficiencies were $89 \pm 19\%$ (R9), $7 \pm 10\%$ (R5), and $0 \pm 0\%$ PBS (ANOVA, $P < 0.001$) which corresponded to NO production in treated aortic segments of 0.175 ± 0.17 (R9), 0.120 ± 0.006 (R5), and 0.135 ± 0.035 μ M/mg (PBS), (ANOVA, $P = 0.002$). GCAD scores at POD 60 were: %LN: $3.2 \pm 3.8\%$ (R9), $12.6 \pm 6.7\%$ (R5), $11.3 \pm 4.2\%$ (PBS) (ANOVA, $P = 0.025$); I/M: 0.03 ± 0.04 (R9), 0.13 ± 0.07 (R5), 0.12 ± 0.05 (PBS) (ANOVA, $P = 0.037$); %AV: $7 \pm 7\%$ (R9), $19 \pm 7\%$ (R5), $22 \pm 9\%$ (PBS) (ANOVA, $P = 0.021$). Reduction of GCAD parameters was maintained at POD 90. R9 efficiently translocated across cytoplasmic membranes, enhanced vascular NO production, and decreased neointimal hyperplasia. This ex vivo treatment may have a therapeutic role in preventing GCAD.

IT 208646-06-4

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(arginine polymer-mediated inhibition of graft coronary artery disease after cardiac transplantation)

IT 208646-06-4

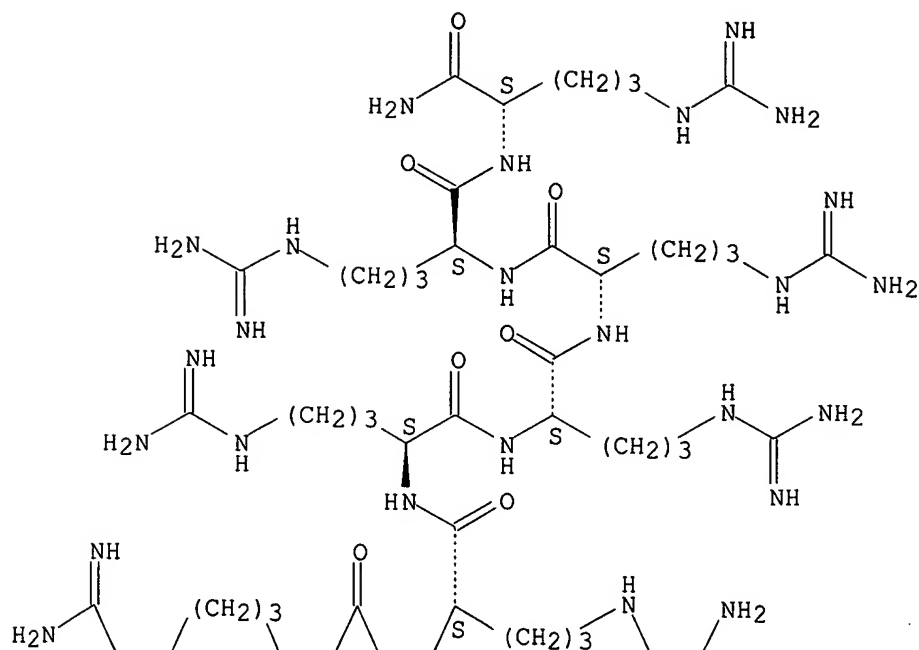
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(arginine polymer-mediated inhibition of graft coronary artery disease after cardiac transplantation)

RN 208646-06-4 HCAPLUS

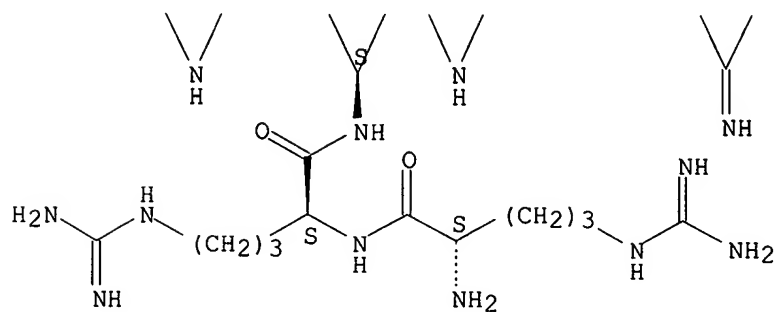
CN L-Argininamide, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Azuma, H | 1995 | 115 | 1001 | Br J Pharmacol | HCAPLUS |
| Azuma, H | 1994 | 6 | 770 | Curr Opin Immunol | HCAPLUS |
| Best, P | 1999 | 19 | 14 | Arterioscler Thromb | MEDLINE |
| Billingham, M | 1994 | 8 | 289 | Clin Transplant | MEDLINE |
| Chester, A | 1998 | 38 | 814 | Cardiovasc Res | HCAPLUS |
| Cooke, J | 1992 | 90 | 1168 | J Clin Invest | HCAPLUS |
| Dusting, G | 1995 | 27 | 395 | Ann Med | HCAPLUS |
| Efthymiadis, A | 1998 | 273 | 1623 | J Biol Chem | HCAPLUS |
| Hill, C | 1994 | 152 | 2890 | J Immunol | HCAPLUS |
| Ignarro, L | 1987 | 84 | 9265 | Proc Natl Acad Sci U | HCAPLUS |
| Jeremy, R | 1996 | 94 | 498 | Circulation | HCAPLUS |

| | | | | | |
|------------------|------|-----|-------|----------------------|---------|
| Koglin, J | 1999 | 99 | 836 | Circulation | MEDLINE |
| Koide, M | 1993 | 268 | 24959 | J Biol Chem | HCAPLUS |
| Kown, M | 2000 | | | J Thorac Cardiovasc | |
| Kown, M | 2001 | 121 | 971 | J Thorac Cardiovasc | HCAPLUS |
| Lafond-Walker, A | 1997 | 151 | 919 | Am J Pathol | MEDLINE |
| Lee, P | 1999 | 26 | 1013 | Clin Exp Pharmacol P | HCAPLUS |
| Lloyd-Jones, D | 1996 | 47 | 365 | Annu Rev Med | MEDLINE |
| Lou, H | 1996 | 15 | 1248 | J Heart Lung Transpl | MEDLINE |
| Maulik, N | 1996 | 94 | 11398 | Circulation | HCAPLUS |
| McNamara, D | 1993 | 193 | 291 | Biochem Biophys Res | HCAPLUS |
| Mitchell, D | 2000 | 56 | 318 | J Pept Res | HCAPLUS |
| Morishita, R | 1995 | 92 | 5855 | Proc Natl Acad Sci U | HCAPLUS |
| Newman, K | 1995 | 96 | 2955 | J Clin Invest | HCAPLUS |
| Okazaki, J | 1997 | 36 | 429 | Cardiovasc Res | HCAPLUS |
| Ono, K | 1969 | 57 | 225 | J Thorac Cardiovasc | MEDLINE |
| Poston, R | 1999 | 100 | 67 | Circulation | HCAPLUS |
| Schmid, C | 1997 | 64 | 222 | Transplantation | MEDLINE |
| Schwarzacher, S | 1997 | 95 | 1863 | Circulation | HCAPLUS |
| Shears, L | 1997 | 100 | 2035 | J Clin Invest | HCAPLUS |
| Uemura, S | 2000 | 102 | 2629 | Circulation | HCAPLUS |
| Vives, E | 1997 | 272 | 16010 | J Biol Chem | HCAPLUS |
| Von der, L | 1995 | 92 | 1137 | Proc Natl Acad Sci U | |
| Wang, C | 2000 | 86 | 982 | Circ Res | HCAPLUS |
| Weis, M | 1997 | 96 | 2069 | Circulation | MEDLINE |
| Yao, S | 1992 | 86 | 1302 | Circulation | HCAPLUS |

L57 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:382668 HCAPLUS

DN 136:128766

TI L-arginine polymers inhibit the development of vein graft neointimal hyperplasia

AU Kown, Murray H.; Yamaguchi, Atsushi; Jahncke, Christina L.; Miniati, Douglas; Murata, Seiichiro; Grunenfelder, Jurg; Koransky, Mark L.; Rothbard, Jonathan B.; Robbins, Robert C.

CS Department of Cardiothoracic Surgery, University School of Medicine, Stanford, CA, USA

SO Journal of Thoracic and Cardiovascular Surgery (2001), 121(5), 971-980

CODEN: JTCSAQ; ISSN: 0022-5223

PB Mosby, Inc.

DT Journal

LA English

AB We sought to determine whether L-arginine polymer treatment of vein grafts enhances vascular production of nitric oxide and inhibits the development of neointimal hyperplasia. External jugular veins of New Zealand White rabbits (n = 42) were harvested; treated intraluminally for 15 min with phosphate-buffered saline solution or L-arginine polymer 5, 7, or 9 at either 10 or 100 μ mol/L; and then grafted into the contralateral carotid artery. Rabbits were killed after 28 days, and 5- μ m sections of vessels were stained with hematoxylin and scored for intima/media ratio by using computerized morphometric anal. Sep. veins were treated in a similar fashion with biotinylated polymers and phosphate-buffered saline solution to assess for translocation efficiencies. Finally, vein segments pretreated with either phosphate-buffered saline solution or L-arginine polymers were cultured in Dulbecco's modified Eagle's medium containing lipopolysaccharide (100 μ g/mL) and interferon γ (200 U/mL) for 48 h before measuring nitric oxide levels by means of the Griess reaction. Biotinylated L-arginine polymers demonstrated a dose- and length-dependent uptake into intimal and medial cells of treated vessels. Nitric oxide levels were significantly higher in vein segments treated with 100

$\mu\text{mol/L}$ of L-arginine polymer compared with control segments. Finally, the intima/media ratio also reflected both length- and concentration-dependent inhibition of neointimal hyperplasia. Arginine polymers of sufficient length and concentration were effective in increasing nitric oxide levels and reducing neointimal hyperplasia in this vein graft model.

IT 208646-04-2 208646-06-4

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(L-arginine polymers inhibit development of vein graft neointimal hyperplasia)

IT 208646-04-2

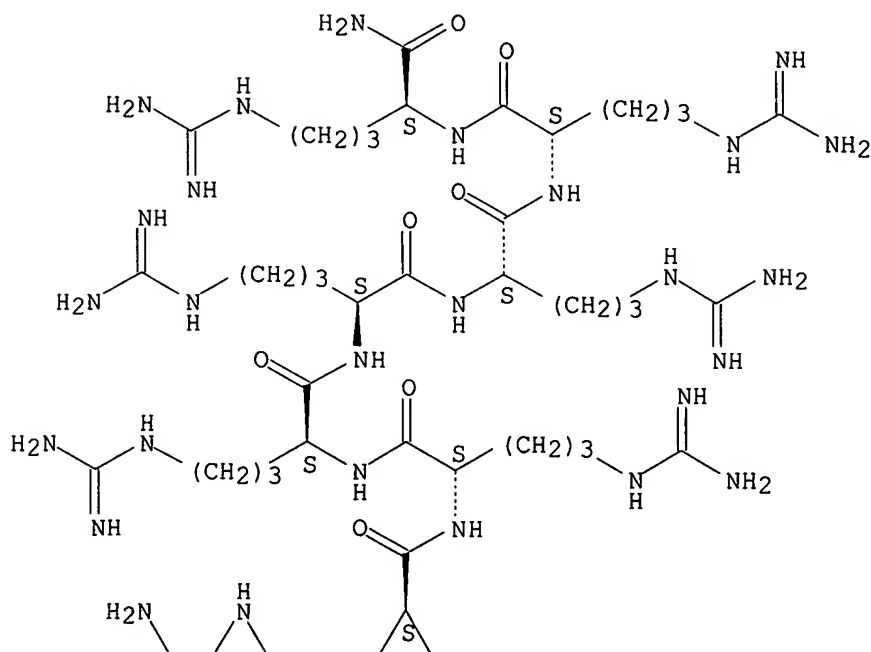
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(L-arginine polymers inhibit development of vein graft neointimal hyperplasia)

RN 208646-04-2 HCAPLUS

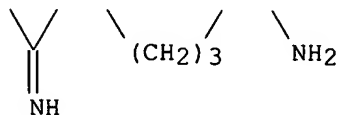
CN L-Argininamide, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



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| Referenced Author | Year | VOL | PG | Referenced Work | Referenced |
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jan delaval - 7 september 2006

| (RAU) | (RPY) | (RVL) | (RPG) | (RWK) | File |
|--------------------|-------|-------|-------|----------------------|---------|
| Best, P | 1999 | 19 | 14 | Arterioscler Thromb | MEDLINE |
| Canver, C | 1995 | 108 | 1150 | Chest | MEDLINE |
| Castillo, L | 1994 | 43 | 114 | Metabolism | HCAPLUS |
| Chester, A | 1998 | 38 | 814 | Cardiovasc Res | HCAPLUS |
| Cohen, J | 1998 | 397 | 169 | Prog Clin Biol Res | HCAPLUS |
| Cooke, J | 1992 | 90 | 1168 | J Clin Invest | HCAPLUS |
| Davies, M | 1995 | 59 | 35 | J Surg Res | HCAPLUS |
| Dusting, G | 1995 | 27 | 395 | Ann Med | HCAPLUS |
| Efthymiadis, A | 1998 | 273 | 1623 | J Biol Chem | HCAPLUS |
| Fitzgibbon, G | 1996 | 28 | 616 | J Am Coll Cardiol | MEDLINE |
| Fulton, G | 1998 | 15 | 279 | Eur J Vasc Endovasc | MEDLINE |
| Hansson, G | 1994 | 180 | 733 | J Exp Med | HCAPLUS |
| Hecker, M | 1999 | 32 | 9 | Gen Pharmacol | HCAPLUS |
| Hill, C | 1994 | 152 | 2890 | J Immunol | HCAPLUS |
| Jeremy, R | 1996 | 94 | 498 | Circulation | HCAPLUS |
| Koide, M | 1993 | 268 | 24959 | J Biol Chem | HCAPLUS |
| Masini, E | 1999 | 48 | 561 | Inflamm Res | HCAPLUS |
| Mitchell, D | 2000 | 56 | 318 | J Pept Res | HCAPLUS |
| Morishita, R | 1995 | 92 | 5855 | Proc Natl Acad Sci U | HCAPLUS |
| Motwani, J | 1998 | 97 | 916 | Circulation | MEDLINE |
| Okazaki, J | 1997 | 36 | 429 | Cardiovasc Res | HCAPLUS |
| Sarkar, R | 1996 | 78 | 225 | Circ Res | HCAPLUS |
| Shears, L | 1997 | 100 | 2035 | J Clin Invest | HCAPLUS |
| Southern, L | 1982 | 55 | 857 | J Anim Sci | HCAPLUS |
| Tsao, P | 1994 | 89 | 2176 | Circulation | HCAPLUS |
| Uemura, S | 2000 | 702 | 2629 | Circulation | |
| Vinten-Johansen, J | 1995 | 50 | 273 | Int J Cardiol | MEDLINE |
| Vives, E | 1997 | 272 | 16010 | J Biol Chem | HCAPLUS |
| Von der, L | 1995 | 92 | 1137 | Proc Natl Acad Sci U | |
| Wu, G | 1998 | 336 | 1 | Biochem J | HCAPLUS |

L57 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:900053 HCAPLUS

DN 135:55761

TI Rapid and efficient vascular transport of arginine polymers inhibits myointimal hyperplasia

AU Uemura, Shiro; Fathman, C. Garrison; Rothbard, Jonathan B.;
Cooke, John P.

CS Department of Medicine, Stanford University School of Medicine, Stanford, USA

SO Circulation (2000), 102(21), 2629-2635

CODEN: CIRCAZ; ISSN: 0009-7322

PB Lippincott Williams & Wilkins

DT Journal

LA English

AB We recently discovered that short polymers of arginine efficiently translocate across the cytoplasmic membrane independent of the basic amino acid transporter. We evaluated the kinetics and biol. effects of heptamers of L-arginine and D-arginine (L-R7 and D-R7, resp.) in vascular cells. We assessed the effects of these peptides on the NO synthesis pathway and vascular cell proliferation. Human umbilical vein endothelial cell and rabbit vascular segments were incubated in medium containing biotin-labeled L-R7 or D-R7. Both polymers rapidly translocated through the vessel wall and into the vascular cells in a dose- and time-dependent fashion. At a dose of 10 μ mol/L for 30 min, 100% of the endothelial cells showed evidence of cytoplasmic and nuclear localization of the peptides. To evaluate the biol. effects of the polymer translocation on myointimal formation, rabbit jugular vein segments were incubated with

polymers (10 μ mol/L, 30 min) or vehicle before arterial interposition grafting. Planimetric measurement 28 days after surgery revealed that L-R7 and D-R7 substantially reduced myointimal formation compared with the control condition (intima/media ratio: control 1.50.5, L-R7 0.40.2, and D-R7 0.80.2). Furthermore, basal nitrate and nitrite production from L-R7-treated grafts was significantly higher than that from both control and D-R7-treated veins. Studies in vitro of cultured vascular smooth muscle cells revealed that both polymers also exhibit an NO-independent inhibition of vascular smooth muscle cell proliferation. Short polymers of arginine have the unique ability of vascular cell translocation, and they also have direct biol. effects. These attributes are potentially useful in treating myointimal hyperplasia.

IT 165893-48-1 216584-13-3

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(arginine polymer rapid and efficient vascular transport inhibits myointimal hyperplasia)

IT 165893-48-1

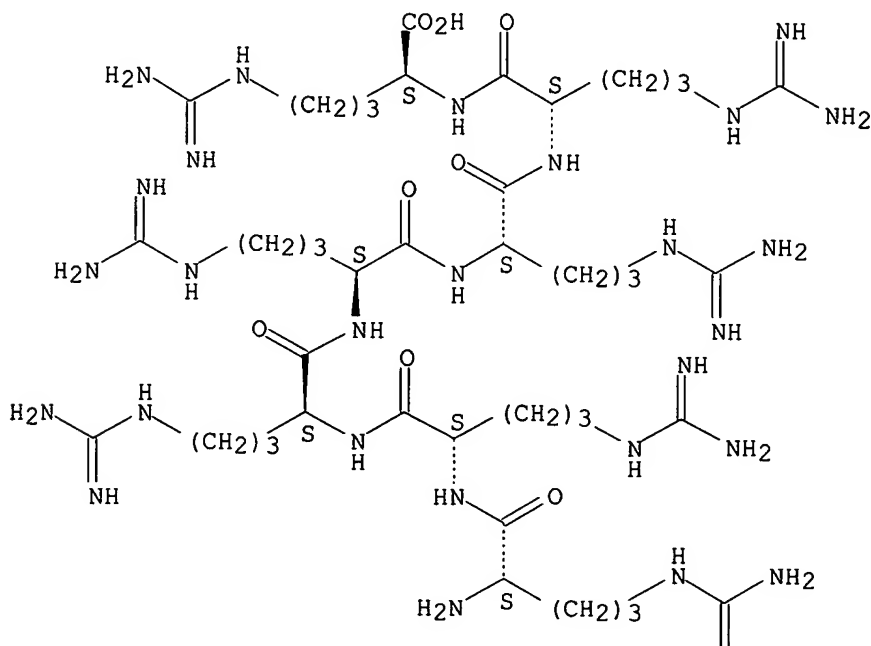
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(arginine polymer rapid and efficient vascular transport inhibits myointimal hyperplasia)

RN 165893-48-1 HCAPLUS

CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

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| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Azuma, H | 1995 | 115 | 1001 | Br J Pharmacol | HCAPLUS |
| Boger, R | 1998 | 98 | 1842 | Circulation | HCAPLUS |
| Cooke, J | 1997 | 48 | 489 | Annu Rev Med | HCAPLUS |
| Currie, A | 1979 | 39 | 613 | Br J Cancer | |
| Dattilo, J | 1997 | 174 | 177 | Am J Surg | MEDLINE |
| Davies, M | 1994 | 116 | 557 | Surgery | MEDLINE |
| D'Aniello, A | 1993 | 105 | 731 | Comp Biochem Physiol | MEDLINE |
| Efthymiadis, A | 1998 | 273 | 1623 | J Biol Chem | HCAPLUS |
| Forrester, J | 1991 | 17 | 758 | J Am Coll Cardiol | MEDLINE |
| Frankel, A | 1988 | 55 | 1189 | Cell | HCAPLUS |
| Garg, U | 1989 | 90 | 1774 | J Clin Invest | |
| Girerd, X | 1990 | 67 | 1301 | Circ Res | HCAPLUS |
| Guoyao, W | 1998 | 366 | 1 | Biochem J | |
| Hansson, G | 1994 | 180 | 733 | J Exp Med | HCAPLUS |
| Hill, C | 1994 | 152 | 2890 | J Immunol | HCAPLUS |
| Joly, G | 1992 | 71 | 331 | Circ Res | HCAPLUS |
| Kaye, D | 1998 | 98 | II-74 | Circulation | |
| Kikuta, K | 1998 | 83 | 1088 | Circ Res | HCAPLUS |
| Kraiss, L | 1997 | | 289 | The Basic Science of | |
| Masuda, H | 1999 | 126 | 211 | Br J Pharmacol | HCAPLUS |
| McNamara, D | 1993 | 193 | 291 | Biochem Biophys Res | HCAPLUS |
| Mitchell, D | | | | To be published in P | |
| Morris, S | 1994 | 266 | E829 | Am J Physiol | HCAPLUS |
| Motwani, J | 1998 | 97 | 916 | Circulation | MEDLINE |
| Nagase, S | 1997 | 233 | 150 | Biochem Biophys Res | HCAPLUS |
| Najbauer, J | 1993 | 268 | 10501 | J Biol Chem | HCAPLUS |
| Pastan, I | 1981 | 214 | 504 | Science | HCAPLUS |
| Pollman, M | 1996 | 79 | 748 | Circ Res | HCAPLUS |
| Ruben, S | 1989 | 63 | 1 | J Virol | HCAPLUS |
| Schwarzacher, S | 1997 | 95 | 1863 | Circulation | HCAPLUS |
| Tsao, P | 1996 | 94 | 1682 | Circulation | HCAPLUS |
| Tsao, P | 1997 | 96 | 934 | Circulation | HCAPLUS |
| Vallance, P | 1992 | 20 | 560 | J Cardiovasc Pharmacol | |
| Vives, E | 1997 | 272 | 16010 | J Biol Chem | HCAPLUS |
| Wang, Q | 1999 | 288 | 270 | J Pharmacol Exp Ther | HCAPLUS |
| Weeks, K | 1990 | 249 | 1281 | Science | HCAPLUS |
| Yang, Z | 1993 | 14 | 193 | Eur Heart J | |

L57 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:880980 HCAPLUS

DN 134:37025

TI Method and composition using an amino acid polymer for inhibiting
cardiovascular cell proliferationIN Cooke, John P.; Fathman, Garrison C.; Rothbard, Jonathan B.;
Uemura, Shiro; Robbins, Robert C.

PA The Board of Trustees of the Leland Stanford Junior University, USA

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

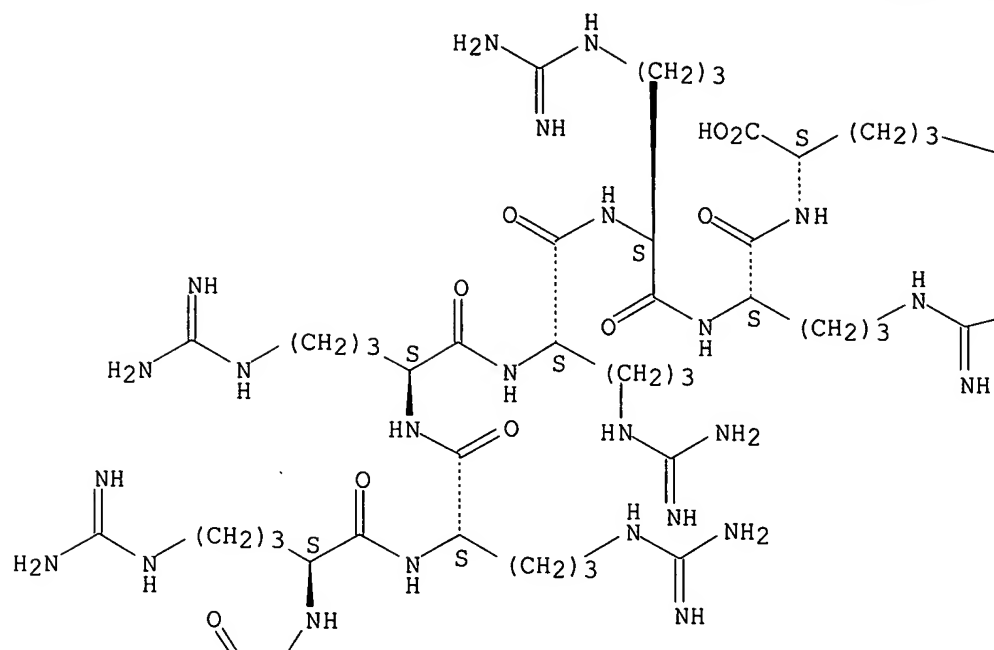
LA English

FAN.CNT 1

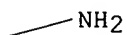
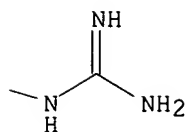
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| PI | WO 2000074701 | A2 | 20001214 | WO 2000-US40125 | 20000605 <-- |
| | WO 2000074701 | A3 | 20010830 | | |
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| | AU 774185 | B2 | 20040617 | AU 2000-61195 | 20000605 <-- |
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| | US 2006167402 | A1 | 20060727 | US 2005-316519 | 20051220 <-- |
| PRAI | US 1999-137826P | P | 19990605 | <-- | |
| | EP 2000-947622 | A3 | 20000605 | <-- | |
| | US 2000-587647 | A1 | 20000605 | <-- | |
| | WO 2000-US40125 | W | 20000605 | <-- | |
| | US 2003-442671 | A1 | 20030520 | | |
| AB | Cardiovascular cell proliferation in a blood vessel subjected to trauma, e.g. angioplasty, vascular graft, anastomosis, or organ transplant, can be inhibited by contacting the vessel with a polymer consisting of from 6 to about 30 amino acid subunits, where at least 50% of the subunits are arginine, and the polymer contains at least six contiguous arginine subunits. Exemplary polymers for this purpose include arginine homopolymers 7 to 15 subunits in length. | | | | |
| IT | 143413-47-2 165893-48-1 312691-24-0 312691-25-1 | | | | |
| | RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) | | | | |
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| IT | 165893-48-1D , biotinylated 216584-13-3D , biotinylated | | | | |
| | RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) | | | | |
| | (amino acid polymer for inhibiting cardiovascular cell proliferation) | | | | |
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| | (amino acid polymer for inhibiting cardiovascular cell proliferation) | | | | |
| RN | 143413-47-2 HCAPLUS | | | | |
| CN | L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME) | | | | |

Absolute stereochemistry.

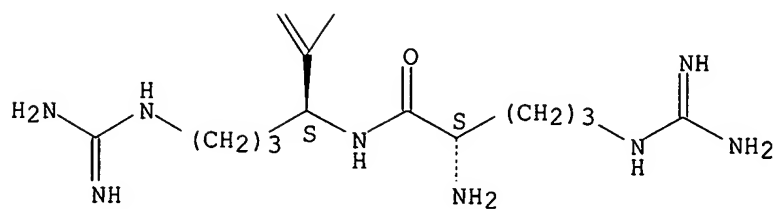
PAGE 1-A



PAGE 1-B



PAGE 2-A



L57 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:846954 HCAPLUS

jan delaval - 7 september 2006

DN 134:183382

TI The design, synthesis, and evaluation of molecules that enable or enhance cellular uptake: peptoid molecular transporters

AU **Wender, Paul A.**; Mitchell, Dennis J.; Pattabiraman, Kanaka; Pelkey, Erin T.; Steinman, Lawrence; **Rothbard, Jonathan B.**

CS Department of Chemistry, Stanford University, Stanford, CA, 94305-5080, USA

SO Proceedings of the National Academy of Sciences of the United States of America (2000), 97(24), 13003-13008
CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

AB Certain proteins contain subunits that enable their active translocation across the plasma membrane into cells. In the specific case of HIV-1, this subunit is the basic domain Tat49-57 (RKKRRQRRR). To establish the optimal structural requirements for this translocation process, and thereby to develop improved mol. transporters that could deliver agents into cells, a series of analogs of Tat49-57 were prepared and their cellular uptake into Jurkat cells was determined by flow cytometry. All truncated and alanine-substituted analogs exhibited diminished cellular uptake, suggesting that the cationic residues of Tat49-57 play a principal role in its uptake. Charge alone, however, is insufficient for transport as oligomers of several cationic amino acids (histidine, lysine, and ornithine) are less effective than Tat49-57 in cellular uptake. In contrast, a 9-mer of L-arginine (R9) was 20-fold more efficient than Tat49-57 at cellular uptake as determined by Michaelis-Menton kinetic anal. The D-arginine oligomer (r9) exhibited an even greater uptake rate enhancement (>100-fold). Collectively, these studies suggest that the guanidinium groups of Tat49-57 play a greater role in facilitating cellular uptake than either charge or backbone structure. Based on this anal., we designed and synthesized a class of polyguanidine peptoid derivs. Remarkably, the subset of peptoid analogs containing a six-methylene space between the guanidine head group and backbone (N-hxg), exhibited significantly enhanced cellular uptake compared to Tat49-57 and even to r9. Overall, a transporter has been developed that is superior to Tat49-57, protease resistant, and more readily and economically prepared

IT **123251-89-8**
RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(design, synthesis, and evaluation of peptoid mol. transporters that enable or enhance cellular uptake) .

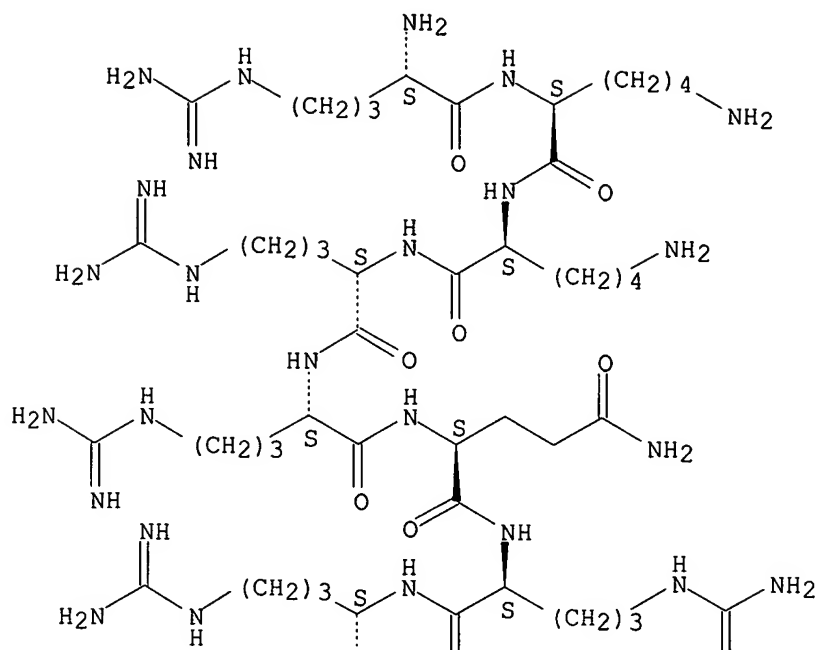
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(design, synthesis, and evaluation of peptoid mol. transporters that enable or enhance cellular uptake)

RN 123251-89-8 HCAPLUS

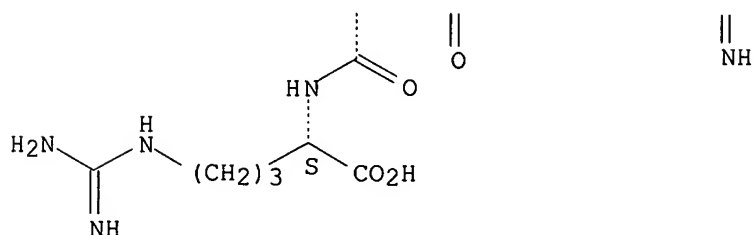
CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Anderson, D | 1993 | 194 | 876 | Biochem Biophys Res | HCAPLUS |
| Atherton, E | 1989 | | | Solid-Phase Peptide | |
| Bernatowicz, M | 1992 | 57 | 2497 | J Org Chem | HCAPLUS |
| Buschle, M | 1997 | 94 | 3256 | Proc Natl Acad Sci U | HCAPLUS |
| Derossi, D | 1998 | 8 | 84 | Trends Cell Biol | HCAPLUS |
| Elliott, G | 1997 | 88 | 223 | Cell | HCAPLUS |
| Emi, N | 1997 | 231 | 421 | Biochem Biophys Res | HCAPLUS |
| Fawell, S | 1994 | 91 | 664 | Proc Natl Acad Sci U | HCAPLUS |
| Feichtinger, K | 1998 | 63 | 8432 | J Org Chem | HCAPLUS |
| Frankel, A | 1988 | 55 | 1189 | Cell | HCAPLUS |
| Ghosh, A | 1996 | 3 | 1011 | Chem Biol | HCAPLUS |
| Gius, D | 1999 | 59 | 2577 | Cancer Res | HCAPLUS |
| Green, M | 1988 | 55 | 1179 | Cell | HCAPLUS |
| Hamy, F | 1997 | 94 | 3548 | Proc Natl Acad Sci U | HCAPLUS |

| | | | | | |
|------------------|------|-----|-------|----------------------|---------|
| Heizmann, G | 1994 | 7 | 328 | Peptide Res | HCAPLUS |
| Jeang, K | 1999 | 274 | 28837 | J Biol Chem | HCAPLUS |
| Kim, D | 1997 | 159 | 1666 | J Immunol | HCAPLUS |
| Kono, K | 1999 | 10 | 1115 | Bioconjugate Chem | HCAPLUS |
| Kruijtzer, J | 1998 | 4 | 1570 | Chem Eur J | HCAPLUS |
| Leonetti, J | 1990 | 1 | 149 | Bioconjugate Chem | HCAPLUS |
| Lin, Y | 1995 | 270 | 14255 | J Biol Chem | HCAPLUS |
| Lindgren, M | 2000 | 21 | 99 | Trends Pharmacol Sci | HCAPLUS |
| Mann, D | 1991 | 10 | 1733 | EMBO J | HCAPLUS |
| Miller, S | 1994 | 4 | 2657 | Bioorg Med Chem Lett | HCAPLUS |
| Mitchell, D | 2000 | 55 | | to be published in J | |
| Mulders, P | 1998 | 58 | 956 | Cancer Res | HCAPLUS |
| Murphy, J | 1998 | 95 | 1517 | Proc Natl Acad Sci U | HCAPLUS |
| Nagahara, H | 1998 | 4 | 1449 | Nat Med | HCAPLUS |
| Pepinsky, R | 1994 | 13 | 1011 | DNA Cell Biol | HCAPLUS |
| Pons, J | 1998 | | 853 | Eur J Org Chem | HCAPLUS |
| Pooga, M | 1998 | 12 | 67 | FASEB J | HCAPLUS |
| Rait, A | 2000 | 11 | 153 | Bioconjugate Chem | HCAPLUS |
| Rui, Y | 1998 | 120 | 11213 | J Am Chem Soc | HCAPLUS |
| Ryser, H | 1967 | 215 | 934 | Nature (London) | HCAPLUS |
| Ryser, H | 1978 | 75 | 3867 | Proc Natl Acad Sci U | HCAPLUS |
| Sandvig, K | 1982 | 257 | 7504 | J Biol Chem | HCAPLUS |
| Schwarze, S | 1999 | 285 | 1569 | Science | HCAPLUS |
| Shen, W | 1978 | 75 | 1872 | Proc Natl Acad Sci U | HCAPLUS |
| Simon, R | 1992 | 89 | 9367 | Proc Natl Acad Sci U | HCAPLUS |
| Tamilarasu, N | 1999 | 121 | 1597 | J Am Chem Soc | HCAPLUS |
| Terwogt, J | 1997 | 23 | 87 | Cancer Treat Rev | HCAPLUS |
| Vives, E | 1997 | 272 | 16010 | J Biol Chem | HCAPLUS |
| Vives, E | 1994 | 68 | 3343 | J Virol | HCAPLUS |
| Vives, E | 1997 | 4 | 429 | Lett Pept Sci | HCAPLUS |
| Vocero-Akbani, A | 1999 | 5 | 29 | Nat Med | HCAPLUS |
| Zuckermann, R | 1992 | 114 | 10646 | J Am Chem Soc | HCAPLUS |

L57 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:802976 HCAPLUS

DN 134:152475

TI Conjugation of arginine oligomers to cyclosporin A facilitates topical delivery and inhibition of inflammation

AU Rothbard, Jonathan B.; Garlington, Sarah; Lin, Qun; Kirschberg, Thorsten; Kreider, Erik; McGrane, Leo P.; Wender, Paul A.; Khavari, Paul A.

CS CellGate, Sunnyvale, CA, 94086, USA

SO Nature Medicine (New York) (2000), 6(11), 1253-1257
CODEN: NAMEFI; ISSN: 1078-8956

PB Nature America Inc.

DT Journal

LA English

AB Many systemically effective drugs such as cyclosporin A are ineffective topically because of their poor penetration into skin. To surmount this problem, we conjugated a heptamer of arginine to cyclosporin A through a pH-sensitive linker to produce R7-CsA. In contrast to unmodified cyclosporin A, which fails to penetrate skin, topically applied R7-CsA was efficiently transported into cells in mouse and human skin. R7-CsA reached dermal T lymphocytes and inhibited cutaneous inflammation. These data establish a general strategy for enhancing delivery of poorly absorbed drugs across tissue barriers and provide a new topical approach to the treatment of inflammatory skin disorders.

IT 165893-48-1

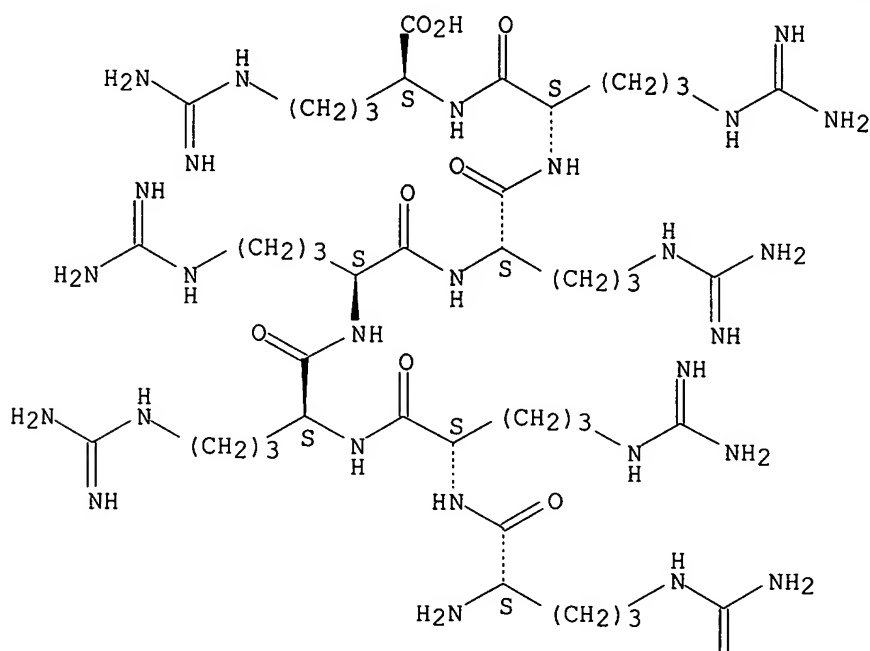
RL: RCT (Reactant); RACT (Reactant or reagent)

(conjugation of arginine oligomers to cyclosporin A facilitates topical

delivery and inhibition of inflammation)
 IT 165893-48-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (conjugation of arginine oligomers to cyclosporin A facilitates topical
 delivery and inhibition of inflammation)
 RN 165893-48-1 HCAPLUS
 CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Bach, M | 1998 | 46 | 1 | Eur J Pharm Biopharm | HCAPLUS |
| Baumann, L | 1999 | 1 | 2713 | Topical Glucocortico | |
| Berth-Jones, J | 1996 | 135 | 775 | Br J Dermatol | MEDLINE |
| Berth-Jones, J | 1997 | 136 | 76 | Br J Dermatol | HCAPLUS |
| Berti, J | 1995 | 70 | 581 | Mayo Clinic Proc | MEDLINE |
| Choate, K | 1996 | 2 | 1263 | Nature Med | HCAPLUS |
| de Prost, Y | 1986 | 2 | 803 | Lancet | MEDLINE |
| De Rie, M | 1991 | 71 | 452 | Acta Derm Venereol | MEDLINE |
| Derossi, D | 1994 | 269 | 10444 | J Biol Chem | HCAPLUS |
| Doering, T | 1999 | 274 | 11038 | J Biol Chem | HCAPLUS |

| | | | | | |
|-------------------|------|-----|------|----------------------|---------|
| Duncan, J | 1993 | 73 | 84 | Acta Derm Venereol | MEDLINE |
| Furlanut, M | 1996 | 33 | 349 | Pharmacol Res | HCAPLUS |
| Ghadially, R | 1995 | 95 | 2281 | J Clin Invest | HCAPLUS |
| Gilbertson, E | 1998 | 38 | 318 | J Am Acad Dermatol | MEDLINE |
| Gilhar, A | 1989 | 69 | 252 | Acta Derm Venereol | MEDLINE |
| Hadgraft, J | 1998 | 3 | 131 | J Invest Dermatol Sy | HCAPLUS |
| Handschumacher, R | 1984 | 226 | 544 | Science | HCAPLUS |
| Ho, V | 1999 | 141 | 283 | Br J Dermatol | HCAPLUS |
| Kim, D | 1997 | 159 | 1666 | J Immunol | HCAPLUS |
| Klemm, J | 1998 | 16 | 569 | Annu Rev Immunol | HCAPLUS |
| Koo, J | 1998 | 139 | 88 | Br J Dermatol | HCAPLUS |
| Miyachi, Y | 1982 | 118 | 451 | Arch Dermatol | MEDLINE |
| Mrowietz, U | 1992 | 72 | 321 | Acta Derm Venereol | MEDLINE |
| Naeyaert, J | 1999 | 198 | 145 | Dermatology | HCAPLUS |
| Nagahara, H | 1998 | 4 | 1449 | Nature Med | HCAPLUS |
| Oikarinen, A | 1998 | 139 | 1106 | Br J Dermatol | HCAPLUS |
| Powles, A | 1998 | 138 | 443 | Br J Dermatol | HCAPLUS |
| Prochiantz, A | 2000 | 12 | 400 | Curr Opin Cell Biol | HCAPLUS |
| Proksch, E | 1993 | 128 | 473 | Br J Dermatol | HCAPLUS |
| Ranade, V | 1991 | 31 | 401 | J Clin Pharmacol | MEDLINE |
| Roberts, M | 1997 | 24 | 874 | Clin Exp Pharmacol P | HCAPLUS |
| Schmook, F | 1993 | 6 | 116 | Skin Pharmacol | HCAPLUS |
| Schwarze, S | 2000 | 10 | 290 | Trends Cell Biol | HCAPLUS |
| Sieg, P | 1995 | 132 | 790 | Br J Dermatol | MEDLINE |
| Simpson, J | 1998 | 20 | 294 | Ther Drug Monit | HCAPLUS |
| Sowden, J | 1991 | 338 | 137 | Lancet | MEDLINE |
| Surber, C | 1992 | 26 | 116 | Contact Dermatitis | MEDLINE |
| Wiskocil, R | 1985 | 134 | 1599 | J Immunol | HCAPLUS |

L57 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:785678 HCAPLUS

DN 134:113485

TI Polyarginine enters cells more efficiently than other polycationic homopolymers

AU Mitchell, D. J.; Kim, D. T.; Steinman, L.; Fathman, C. G.; Rothbard, J. B.

CS Department of Neurology, Stanford University, Stanford, CA, USA

SO Journal of Peptide Research (2000), 56(5), 318-325

CODEN: JPERFA; ISSN: 1397-002X

PB Munksgaard International Publishers Ltd.

DT Journal

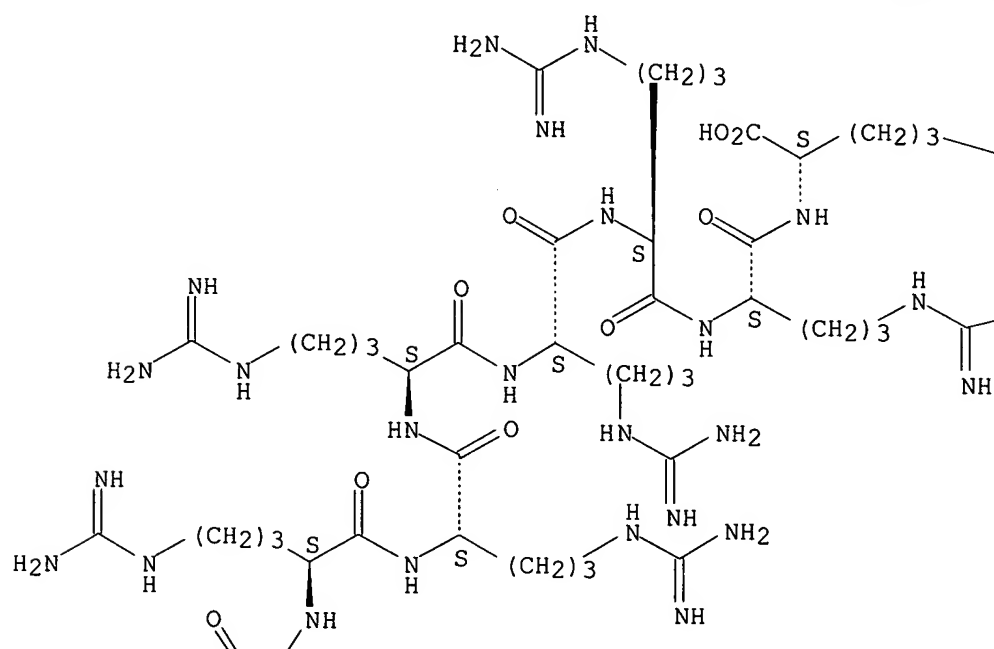
LA English

AB Homopolymers or peptides containing a high percentage of cationic amino acids have been shown to have a unique ability to cross the plasma membrane of cells, and consequently have been used to facilitate the uptake of a variety of biopolymers and small mols. To investigate whether the polycationic character of these mols., or some other structural feature, was the mol. basis for the effect, the ability of a variety of homopolymers to enter cells was assayed by confocal microscopy and flow cytometry. Polymers of L- or D-arginine containing six or more amino acids entered cells far more effectively than polymers of equal length composed of lysine, ornithine and histidine. Peptides of fewer than six amino acids were ineffective. The length of the arginine side-chain could be varied without significant loss of activity. These data combined with the inability of polymers of citrulline to enter cells demonstrated that the guanidine headgroup of arginine was the critical structural component responsible for the biol. activity. Cellular uptake could be inhibited by pre-incubation of the cells with sodium azide, but not by low temperature (3°C), indicating that the process was energy dependent, but did not involve endocytosis.

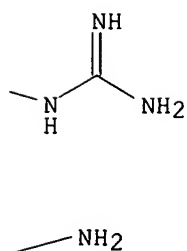
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 (Biological study); PROC (Process)
 (polyarginine uptake by cell membrane and intracellular transport)
 IT 143413-47-2
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
 (Biological study); PROC (Process)
 (polyarginine uptake by cell membrane and intracellular transport)
 RN 143413-47-2 HCAPLUS
 CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-
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Absolute stereochemistry.

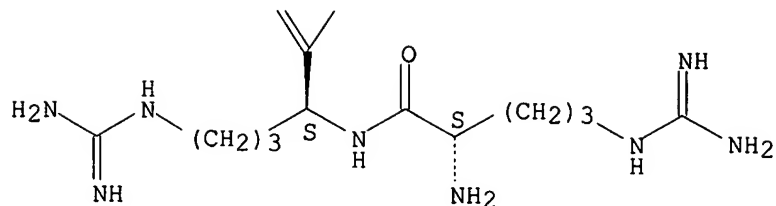
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PAGE 1-B



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Arnold, L | 1979 | 76 | 3246 | Proc Natl Acad Sci U | HCAPLUS |
| Bernatowicz, M | 1992 | 57 | 2497 | J Org Chem | HCAPLUS |
| Brugidou, J | 1995 | 214 | 685 | Biochem Biophys Res | HCAPLUS |
| Curiel, D | 1994 | 716 | 36 | Ann NY Acad Sci | HCAPLUS |
| Frankel, A | 1988 | 55 | 1189 | Cell | HCAPLUS |
| Gordon, A | 1972 | | | The Chemist's Compan | |
| Green, M | 1988 | 55 | 1179 | Cell | HCAPLUS |
| Harrison, J | 1998 | 26 | 3136 | Nucleic Acids Res | HCAPLUS |
| Hill, C | 1994 | 152 | 2890 | J Immunol | HCAPLUS |
| Hwang, P | 1998 | 76 | 235 | Biochem Cell Biol | HCAPLUS |
| Laurent, N | 1999 | 443 | 61 | FEBS Lett | HCAPLUS |
| Mahato, R | 1997 | 14 | 133 | Crit Rev Ther Drug C | HCAPLUS |
| Midoux, P | 1998 | 9 | 260 | Bioconjugate Chem | HCAPLUS |
| Phillips, S | 1995 | 23 | 13 | Biologicals | MEDLINE |
| Ryser, H | 1989 | | | US 4847240 | HCAPLUS |
| Ryser, H | 1982 | 113 | 167 | J Cell Physiol | HCAPLUS |
| Ryser, H | 1967 | 215 | 934 | Nature | HCAPLUS |
| Ryser, H | 1978 | 75 | 3867 | Proc Natl Acad Sci U | HCAPLUS |
| Ryser, H | 1965 | 150 | 501 | Science | MEDLINE |
| Shen, W | 1978 | 75 | 1872 | Proc Natl Acad Sci U | HCAPLUS |
| Uemura, S | | | | to be published in C | |
| Wagner, E | 1990 | 87 | 3410 | Proc Natl Acad Sci U | HCAPLUS |
| Wu, G | 1991 | 3 | 87 | Biothera | HCAPLUS |

L57 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:789054 HCAPLUS

DN 130:57169

TI Polymer conjugates for enhancing drug transport across biological membranes

IN Rothbard, Jonathan B.; Wender, Paul A.

PA The Board of Trustees of the Leland Stanford Junior University, USA

SO PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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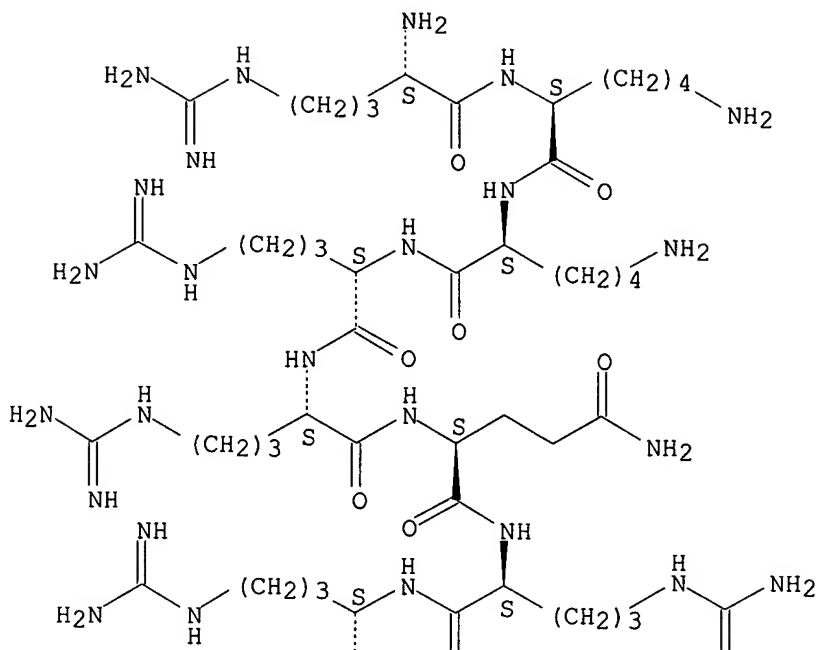
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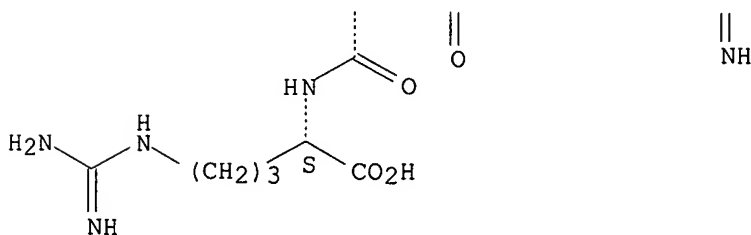
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| AU 9875938 | A1 | 19981211 | AU 1998-75938 | 19980521 <-- |
| AU 734827 | B2 | 20010621 | | |
| EP 975370 | A2 | 20000202 | EP 1998-923711 | 19980521 <-- |
| EP 975370 | B1 | 20031015 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| GB 2341390 | A1 | 20000315 | GB 1999-23841 | 19980521 <-- |
| GB 2341390 | B2 | 20001108 | | |
| BR 9809138 | A | 20010828 | BR 1998-9138 | 19980521 <-- |
| US 6306993 | B1 | 20011023 | US 1998-83259 | 19980521 <-- |
| JP 2002502376 | T2 | 20020122 | JP 1998-550716 | 19980521 <-- |
| EP 1304122 | A2 | 20030423 | EP 2003-75137 | 19980521 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL | | | | |
| AT 251913 | E | 20031115 | AT 1998-923711 | 19980521 <-- |
| ES 2210761 | T3 | 20040701 | ES 1998-923711 | 19980521 <-- |
| US 6495663 | B1 | 20021217 | US 1999-396195 | 19990914 <-- |
| US 2002131965 | A1 | 20020919 | US 2001-957161 | 20010919 <-- |
| US 2003162719 | A1 | 20030828 | US 2003-338348 | 20030107 <-- |
| US 2006111274 | A1 | 20060525 | US 2006-335007 | 20060118 <-- |
| PRAI US 1997-47345P | P | 19970521 | <-- | |
| EP 1998-923711 | A3 | 19980521 | <-- | |
| US 1998-83259 | A1 | 19980521 | <-- | |
| WO 1998-US10571 | W | 19980521 | <-- | |
| US 1999-396194 | B1 | 19990914 | <-- | |
| US 1999-396195 | A1 | 19990914 | <-- | |
| US 2003-338348 | A1 | 20030107 | | |
| AB | Methods and compns. for transporting drugs and macromols. across biol. membranes are disclosed. In one embodiment, the invention includes a method for enhancing transport of a selected compound across a biol. membrane, wherein a biol. membrane is contacted with a conjugate containing a biol. active agent that is covalently attached to a transport polymer. In one embodiment, the polymer consists of from 6 to 25 subunits, at least 50 % of which contain a guanidino or amidino side-chain moiety. The polymer is effective to impart to the attached agent a rate of trans-membrane transport across a biol. membrane that is greater than the rate of trans-membrane transport of the agent in non-conjugated form. | | | |
| IT | 123251-89-8 143413-47-2 153127-44-7 165893-48-1 216584-13-3 RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (polymer conjugates for enhancing drug transport across biol. membranes) | | | |
| IT | 123251-89-8 RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (polymer conjugates for enhancing drug transport across biol. membranes) | | | |
| RN | 123251-89-8 HCAPLUS | | | |
| CN | L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminy-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME) | | | |

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L57 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:534575 HCAPLUS
 DN 127:246793
 TI Introduction of soluble proteins into the MHC class I pathway by
 conjugation to an HIV tat peptide
 AU Kim, Dewey T.; Mitchell, Dennis J.; Brockstedt, Dirk G.; Fong, Lawrence;
 Nolan, Garry P.; Fathman, C. Garrison; Engleman, Edgar G.; **Rothbard,**
Jonathan B.
 CS Dep. Med., Neurology, Pharmacology, and Pathology, Stanford Univ. Sch.
 Med., Stanford, CA, 94305, USA
 SO Journal of Immunology (1997), 159(4), 1666-1668
 CODEN: JOIMA3; ISSN: 0022-1767
 PB American Association of Immunologists
 DT Journal
 LA English
 AB Protection against most intracellular pathogens requires T cells that
 recognize pathogen-derived peptides in association with MHC class I mols. on

the surface of infected cells. However, because exogenous proteins do not ordinarily enter the cytosol and access the MHC class I-processing pathway, protein-based vaccines that induce class I-restricted CTL responses have proved difficult to design. The authors addressed this problem by conjugating proteins, such as OVA, to a short cationic peptide derived from HIV-1 tat (residues 49-57). When APC were exposed in vitro to such protein conjugates, they processed and presented the peptides in association with MHC class I mols. and stimulated CD8+ antigen (Ag)-specific T cells. Moreover, Ag-specific CTLs were generated in vivo by immunizing mice with histocompatible dendritic cells that had been exposed to protein-tat conjugates.

IT 123251-89-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(soluble proteins introduction into MHC class I pathway by conjugation to HIV tat peptide)

IT 123251-89-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

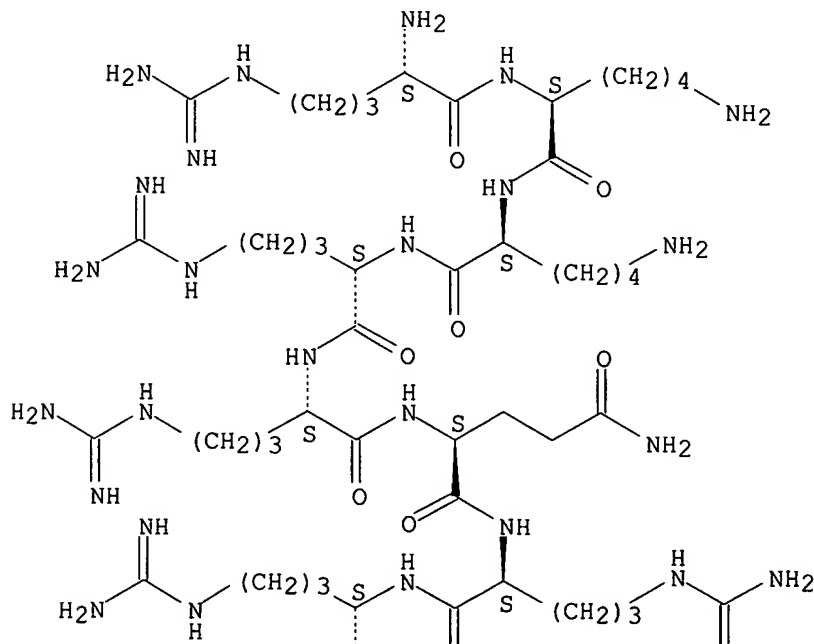
(soluble proteins introduction into MHC class I pathway by conjugation to HIV tat peptide)

RN 123251-89-8 HCAPLUS

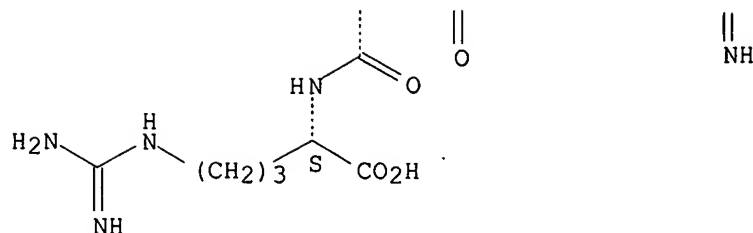
CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| ===== | + | + | + | + | ===== |
| Allsopp, C | 1996 | 26 | 1951 | Eur J Immunol | HCAPLUS |
| Carbone, F | 1988 | 167 | 1767 | J Exp Med | HCAPLUS |
| Carbone, F | 1989 | 169 | 603 | J Exp Med | HCAPLUS |
| Cresswell, P | 1994 | 12 | 259 | Annu Rev Immunol | HCAPLUS |
| Elbe, A | 1995 | 378 | 341 | Adv Exp Med Biol | HCAPLUS |
| Fawell, S | 1994 | 91 | 664 | Proc Natl Acad Sci U | HCAPLUS |
| Flamand, V | 1994 | 24 | 605 | Eur J Immunol | MEDLINE |
| Frankel, A | 1988 | 55 | 1189 | Cell | HCAPLUS |
| Germain, R | 1995 | 754 | 114 | Ann NY Acad Sci | HCAPLUS |
| Heemels, M | 1995 | 64 | 463 | Annu Rev Biochem | HCAPLUS |
| Hill, C | 1994 | 152 | 2890 | J Immunol | HCAPLUS |
| Hsu, F | 1996 | 2 | 52 | Nat Med | HCAPLUS |
| Kalish, R | 1995 | 32 | 640 | J Am Acad Dermatol | MEDLINE |
| Kim, D | 1996 | 156 | 2737 | J Immunol | HCAPLUS |
| Mayordomo, J | 1995 | I | 1297 | Nat Med | |
| Mehta-Damani, A | 1994 | 153 | 996 | J Immunol | HCAPLUS |
| Monaco, J | 1995 | 57 | 543 | J Leukocyte Biol | HCAPLUS |
| Moore, M | 1988 | 54 | 777 | Cell | HCAPLUS |
| Nonacs, R | 1992 | 176 | 519 | J Exp Med | HCAPLUS |
| Norbury, C | 1995 | 3 | 783 | Immunity | HCAPLUS |
| Paglia, P | 1996 | 183 | 317 | J Exp Med | HCAPLUS |
| Pepinsky, R | 1994 | 13 | 1011 | DNA Cell Biol | HCAPLUS |
| Porgador, A | 1995 | 182 | 255 | J Exp Med | HCAPLUS |
| Powis, S | 1991 | 354 | 528 | Nature | HCAPLUS |
| Rotzschke, O | 1991 | 21 | 2891 | Eur J Immunol | MEDLINE |
| Zitvogel, L | 1996 | 183 | 87 | J Exp Med | HCAPLUS |

=> d 159 bib abs hitrn fhitstr retable tot

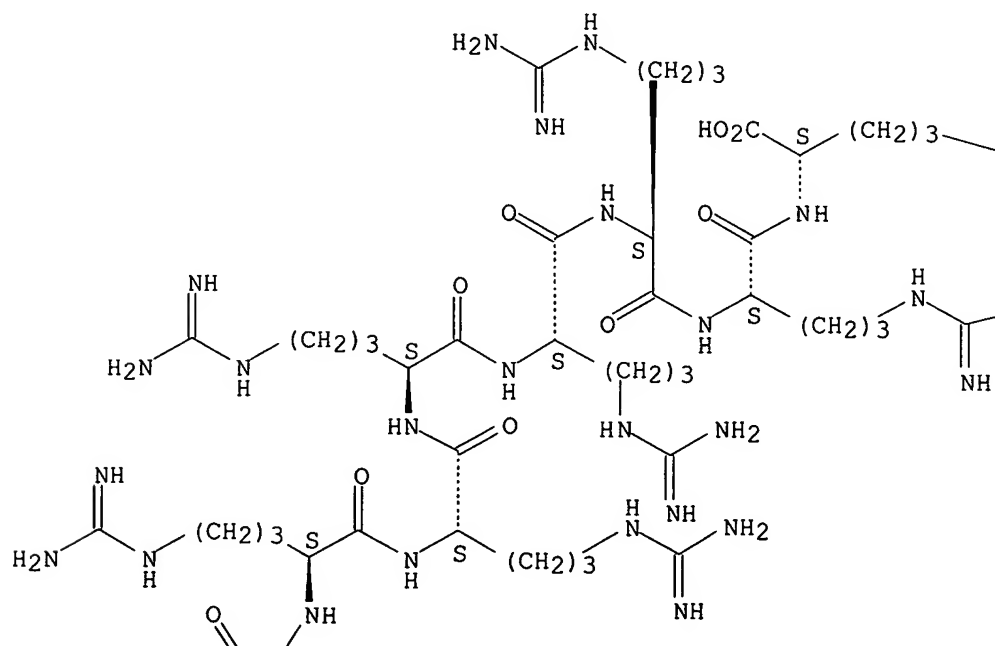
L59 ANSWER 1 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2006:740582 HCAPLUS
 DN 145:180963
 TI Membrane-permeable fusion proteins of tat and anti-apoptotic proteins for
 treatment of sepsis
 IN Hotchkiss, Richard; Piwnica-Worms, David; Mcdunn, Jonathan
 PA USA
 SO U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. Ser. No. 374,035.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 5

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|-------|-----------------|-------|
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PI US 2006166881 A1 20060727 US 2005-286920 20051123 <--
 US 6348185 B1 20020219 US 1999-336093 19990618 <--
 US 6589503 B1 20030708 US 2000-557465 20000425 <--
 US 2003219375 A1 20031127 US 2003-368280 20030218 <--
 US 2003219378 A1 20031127 US 2003-374035 20030225 <--
 PRAI US 1998-90087P P 19980620 <--
 US 1999-336093 A2 19990618 <--
 US 2000-557465 A3 20000425 <--
 US 2003-368280 A2 20030218
 US 2003-374035 A2 20030225
 AB Membrane permeable fusion proteins of anti-apoptotic proteins of the Bcl-2 family with cell membrane-penetrating peptide of the tat protein of human immunodeficiency virus are described for use in the prevention of large-scale apoptosis in the treatment of sepsis. Fusion proteins of the same tat peptide and a peptide complex with technetium99m are described for use in diagnostic imaging. Preparation of the fusion proteins, either by chem synthesis or expression of the corresponding gene is described. Fusion proteins of the tat peptide and the BH4 domain of Bcl-Xl improved survival in the rat cecal ligation and puncture model of sepsis and also promoted the survival of lymphocytes in vivo and in vitro.
 IT **143413-47-2 627881-61-2**
 RL: PRP (Properties)
 (unclaimed sequence; membrane-permeable fusion proteins of tat and anti-apoptotic proteins for treatment of sepsis)
 IT **143413-47-2**
 RL: PRP (Properties)
 (unclaimed sequence; membrane-permeable fusion proteins of tat and anti-apoptotic proteins for treatment of sepsis)
 RN 143413-47-2 HCAPLUS
 CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

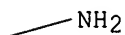
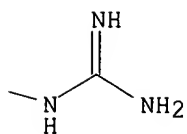
Absolute stereochemistry.

PAGE 1-A

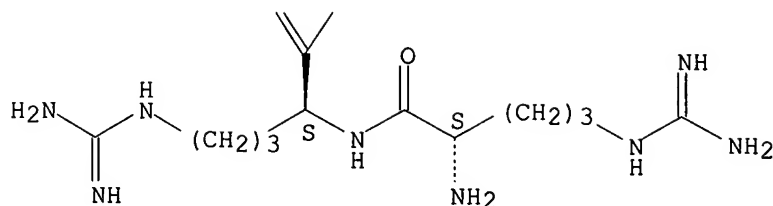


jan delaval - 7 september 2006

PAGE 1-B



PAGE 2-A



L59 ANSWER 2 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:1224630 HCAPLUS
 DN 143:476398
 TI Antibodies that immunospecifically bind to B lymphocyte stimulator and
 their use in diagnosis and treatment of autoimmune disease
 IN Ruben, Steven M.; Barash, Steven C.; Choi, Gil H.; Vaughan, Tristan;
 Hilbert, David
 PA USA
 SO U.S. Pat. Appl. Publ., 240 pp., Cont.-in-part of Ser. No. US 2002-293418,
 filed on 14 Nov 2002 which Cont.-in-pa
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 19

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | US 2005255532 | A1 | 20051117 | US 2005-54515 | 20050210 <-- |
| | EP 1577391 | A1 | 20050921 | EP 2005-12261 | 19961025 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | US 2003059937 | A1 | 20030327 | US 2001-880748 | 20010615 <-- |
| | AU 2001054180 | A5 | 20020725 | AU 2001-54180 | 20010703 <-- |
| | AU 779750 | B2 | 20050210 | | |
| | US 2003223996 | A1 | 20031204 | US 2002-293418 | 20021114 <-- |
| | JP 2004129667 | A2 | 20040430 | JP 2003-362615 | 20031022 <-- |
| | US 2006062789 | A1 | 20060323 | US 2005-266444 | 20051104 <-- |
| PRAI | US 2000-212210P | P | 20000616 | <-- | |
| | US 2000-240816P | P | 20001017 | <-- | |
| | US 2001-276248P | P | 20010316 | <-- | |

| | | | |
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| US 2001-277379P | P | 20010321 | <-- |
| US 2001-293499P | P | 20010525 | <-- |
| US 2001-880748 | A2 | 20010615 | <-- |
| US 2001-331469P | P | 20011116 | <-- |
| US 2001-340817P | P | 20011219 | <-- |
| US 2002-293418 | A2 | 20021114 | |
| US 2004-543296P | P | 20040211 | |
| US 2004-580347P | P | 20040618 | |
| AU 1996-76745 | A3 | 19961025 | <-- |
| EP 1996-939612 | A3 | 19961025 | <-- |
| JP 1998-520411 | A3 | 19961025 | <-- |

AB The present invention relates to 2128 VH and VL domains of single-chain antibodies and related mols. that immunospecifically bind to B Lymphocyte Stimulator (BLyS). The present invention also relates to methods and compns. for detecting or diagnosing a disease or disorder associated with aberrant BLyS expression or inappropriate function of BLyS comprising antibodies or fragments or variants thereof or related mols. that immunospecifically bind to BLyS. The present invention further relates to methods and compns. for preventing, treating or ameliorating a disease or disorder associated with aberrant BLyS expression or inappropriate BLyS function comprising administering to an animal an effective amount of one or more antibodies or fragments or variants thereof or related mols. that immunospecifically bind to BLyS.

IT **389116-42-1**

RL: PRP (Properties)

(unclaimed protein sequence; antibodies that immunospecifically bind to B lymphocyte stimulator and their use in diagnosis and treatment of autoimmune disease)

IT **389116-42-1**

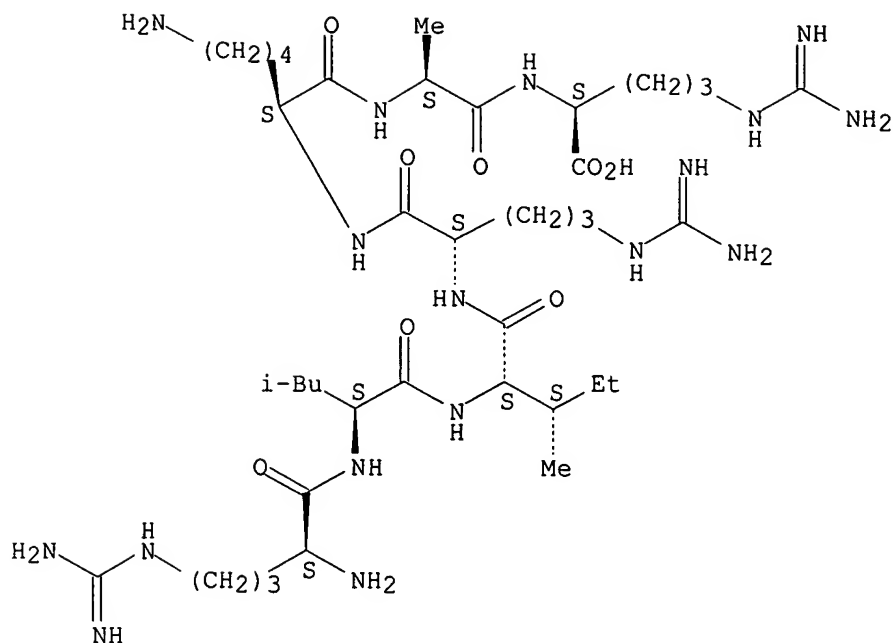
RL: PRP (Properties)

(unclaimed protein sequence; antibodies that immunospecifically bind to B lymphocyte stimulator and their use in diagnosis and treatment of autoimmune disease)

RN 389116-42-1 HCAPLUS

CN L-Arginine, L-arginyl-L-leucyl-L-isoleucyl-L-arginyl-L-lysyl-L-alanyl-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L59 ANSWER 3 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:238548 HCAPLUS
 DN 142:294256
 TI Use of HIV Tat peptides complexed with semiconductor nanocrystals for enhancing transport across cell membranes and their use in high throughput drug screening assays
 IN Bruchez, Marcel P.; Daniels, R. Hugh; Dias, Jennifer; Mattheakis, Larry C.; Liu, Hongjian; Burt, Aqunette M.; Christoffer, Berndt; Ly, Danith H.
 PA Quantum Dot Corporation, USA
 SO U.S. Pat. Appl. Publ., 60 pp., Cont.-in-part of U.S. Ser. No. 972,744.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----|--|------|----------|-----------------|--------------|
| PI | US 2005059031 | A1 | 20050317 | US 2003-735608 | 20031212 <-- |
| | US 2002155507 | A1 | 20021024 | US 2001-972744 | 20011005 <-- |
| | US 2004023261 | A1 | 20040205 | US 2003-374652 | 20030226 <-- |
| | CA 2550151 | AA | 20050909 | CA 2004-2550151 | 20041206 |
| | WO 2005081721 | A2 | 20050909 | WO 2004-US41045 | 20041206 |
| | WO 2005081721 | A3 | 20060316 | | |
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| RW: | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |

PRAI US 2000-238677P P 20001006 <--
 US 2001-312558P P 20010815 <--
 US 2001-972744 A2 20011005 <--
 US 2003-735608 A 20031212
 WO 2004-US41045 W 20041206

AB The present invention relates to use of HIV Tat peptides complexed with semiconductor nanocrystals for enhancing transport across cell membranes and their use in high throughput drug screening assays. The methods are particularly useful in multiplex settings where a plurality of encoded cells are to be assayed. Kits comprising reagents for performing such methods are also provided.

IT **123251-89-8**
 RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
 (Tat peptide sequence; use of HIV Tat peptides complexed with semiconductor nanocrystals for enhancing transport across cell membranes and their use in high throughput drug screening assays)

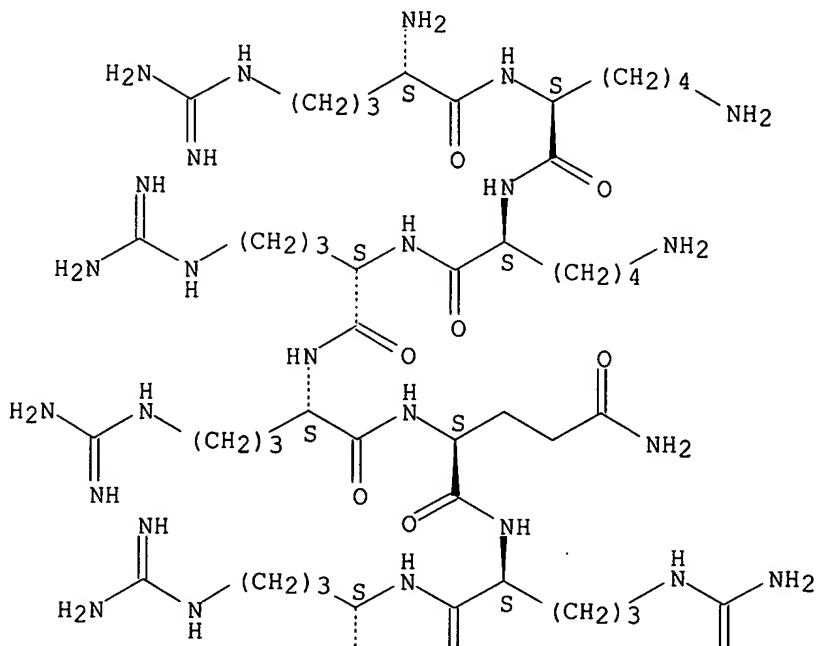
IT **123251-89-8**
 RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
 (Tat peptide sequence; use of HIV Tat peptides complexed with semiconductor nanocrystals for enhancing transport across cell membranes and their use in high throughput drug screening assays)

RN 123251-89-8 HCAPLUS

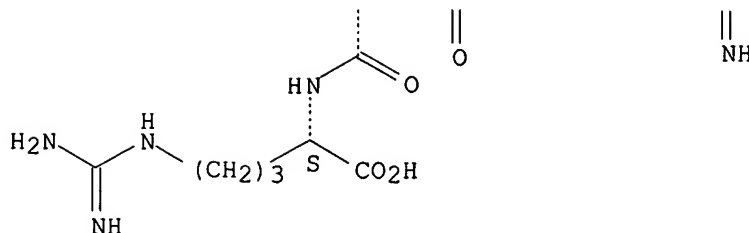
CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 4 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:207840 HCAPLUS

DN 142:274073

TI Compositions and methods for treating cellular response to injury and other proliferating cell disorders regulated by hyaladherin and hyaluronans

IN Turley, Eva A.; Cruz, Tony F.

PA Can.

SO U.S., 115 pp., Cont.-in-part of U.S. Ser. No. 541,522, abandoned.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|------|----------|-----------------|--------------|
| PI | US 6864235 | B1 | 20050308 | US 2000-685010 | 20001005 <-- |
| | US 2003100490 | A1 | 20030529 | US 2001-978309 | 20011015 <-- |
| | US 6911429 | B2 | 20050628 | | |
| | US 2005058646 | A1 | 20050317 | US 2004-898675 | 20041129 <-- |
| | US 2005065085 | A1 | 20050324 | US 2004-892831 | 20041129 <-- |
| PRAI | US 1999-127457P | P | 19990401 | <-- | |
| | US 2000-541522 | B2 | 20000403 | <-- | |
| | US 2000-685010 | A2 | 20001005 | <-- | |
| | US 2001-978309 | A3 | 20011015 | <-- | |

AB The present invention provides compns. and methods for treating a tissue disorder associated with a response-to-injury process or proliferating cells in a mammal. The tissue disorders include fibrosis, inflammation, degeneration and invasive disorders such as those occur in cancerous cells. The invention provides methods for detecting hyaluronic acid in a sample comprising: incubating the sample with RHAMM polypeptide and with RHAMM-binding protein and detecting the complex formed by using antibody. The methods provided herein include administering to the mammal, an effective amount of a composition that alters the activity of transition mols. within a cell. Transition mols. are shown to be comprised of hyaladherins, hyaluronans and associated mols. that regulate the transitional phenotype.

IT 410521-18-5 410521-34-5 410521-35-6
410521-42-5

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(synthetic peptide; compns. and methods for treating cellular response to injury and other proliferating cell disorders regulated by hyaladherin and hyaluronans)

IT 410521-18-5

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(synthetic peptide; compns. and methods for treating cellular response

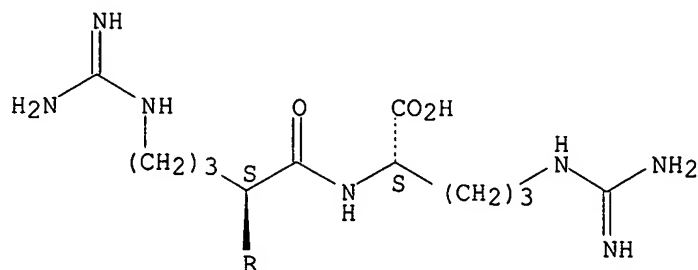
to injury and other proliferating cell disorders regulated by
hyaladherin and hyaluronans)

RN 410521-18-5 HCAPLUS

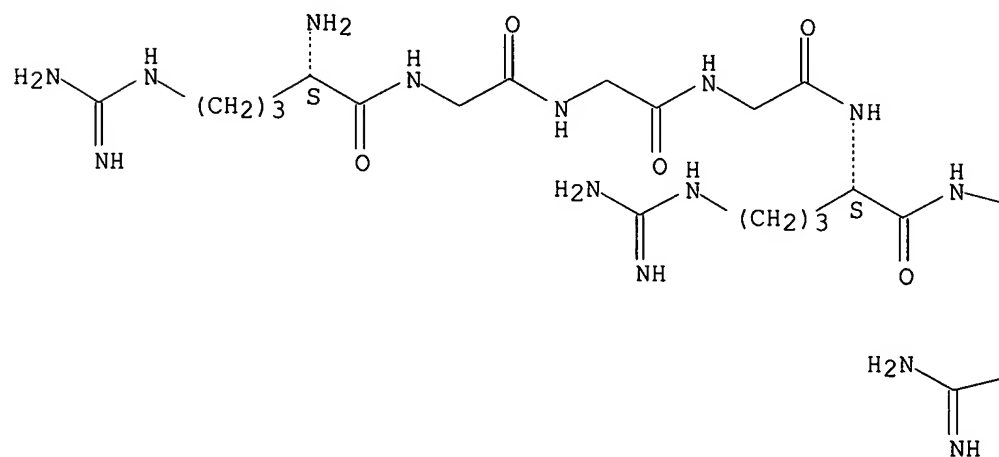
CN L-Arginine, L-arginylglycylglycylglycyl-L-arginylglycyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

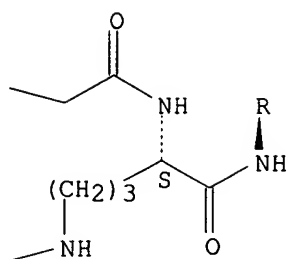
PAGE 1-A



PAGE 2-A



PAGE 2-B



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Agrafiotis | 1995 | | | US 5463564 A | |
| Alting-Mees | 1990 | 3 | 1 | Strategies in Molecu | |
| Anon | 1989 | | | WO 8901973 | HCAPLUS |
| Anon | 1990 | | | WO 9002809 | HCAPLUS |
| Anon | 1990 | | | WO 9007862 | |
| Anon | 1990 | | | WO 9007936 | HCAPLUS |
| Anon | 1991 | | | EP 0415731 A2 | HCAPLUS |
| Anon | 1991 | | | EP 0440219 A1 | HCAPLUS |
| Anon | 1991 | | | WO 9100285 | HCAPLUS |
| Anon | 1992 | | | WO 9215677 | HCAPLUS |
| Anon | 1992 | | | WO 9215679 | HCAPLUS |
| Anon | 1993 | | | WO 9310218 | HCAPLUS |
| Anon | 1993 | | | WO 9311230 | HCAPLUS |
| Anon | 1993 | | | WO 9312227 | HCAPLUS |
| Anon | 1993 | | | WO 9320242 | HCAPLUS |
| Anon | 1993 | | | WO 9321312 | HCAPLUS |
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| Anon | 1993 | | | WO 9325234 | HCAPLUS |
| Anon | 1993 | | | WO 9325698 | HCAPLUS |
| Anon | 1994 | | | EP 0612844 A2 | HCAPLUS |
| Anon | 1994 | | | WO 9206693 | HCAPLUS |
| Anon | 1994 | | | WO 9403622 | HCAPLUS |
| Anon | 1995 | | | WO 9502566 | HCAPLUS |
| Anon | 1995 | | | WO 9504277 | HCAPLUS |
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| Anon | 1996 | | | EP 0721012 | HCAPLUS |
| Anon | 1996 | | | WO 9600148 | HCAPLUS |
| Anon | 1997 | | | WO 9738098 | HCAPLUS |
| Anon | 1997 | | | WO 9738098 | HCAPLUS |
| Anon | 1999 | | | EP 0950708 | HCAPLUS |

| | | | | | |
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| Anon | 1999 | | | WO 9901164 | HCAPLUS |
| Anon | 2000 | | | WO 0001841 | HCAPLUS |
| Anon | 2000 | | | WO 0029447 | HCAPLUS |
| Anon | 2000 | | | WO 0039166 | HCAPLUS |
| Anon | 2001 | | | WO 0180899 | HCAPLUS |
| Anon | 2002 | | | WO 0213848 | HCAPLUS |
| Anon | 2002 | | | WO 0228415 | HCAPLUS |
| Anon | 2001 | | | PCT/I00/01534 | |
| Assmann, V | 1999 | 112 | 3943 | J Cell Sci | HCAPLUS |
| Barber | 1997 | | | US 5591624 A | HCAPLUS |
| Barber | 1998 | | | US 5716832 A | HCAPLUS |
| Bauer | 1985 | 37 | 73 | Gene | HCAPLUS |
| Bird | 1988 | 242 | 423 | Science | HCAPLUS |
| Bosselman | 1992 | | | US 5162215 A | HCAPLUS |
| Brinster | 1985 | 82 | 4438 | PNAS | HCAPLUS |
| Byrne | 1993 | | | US 5221778 A | HCAPLUS |
| Cech | 1991 | | | US 4987071 A | HCAPLUS |
| Chao | 1996 | 174 | 299 | Gene | |
| Cheung, W | 1999 | | 135 | Biochemical Society | HCAPLUS |
| Chothia | 1985 | 186 | 651 | Journal of Molecular | HCAPLUS |
| Cleeland | 1977 | | | US 4018884 A | HCAPLUS |
| Cook | 1994 | | | US 5359051 A | HCAPLUS |
| Cordell | 1995 | | | US 5387742 A | HCAPLUS |
| Craik | 1985 | 3 | 12 | BioTechniques | HCAPLUS |
| Curiel | 1992 | 3 | 147 | Human Gene Therapy | MEDLINE |
| David | 1983 | | | US 4376110 A | HCAPLUS |
| David | 1984 | | | US 4486530 A | HCAPLUS |
| Day, A | 2002 | 277 | 4585 | J Biol Chem | HCAPLUS |
| Deboer | 1985 | | | US 4551433 A | HCAPLUS |
| Deboer | 1997 | | | US 5633076 A | HCAPLUS |
| Deboer | 1998 | | | US 5741957 A | HCAPLUS |
| Dillon | 1995 | | | US 5395750 A | HCAPLUS |
| Drinkwater | 1986 | 83 | 3402 | PNAS | HCAPLUS |
| Dubensky | 1998 | | | US 5789245 A | HCAPLUS |
| Dubensky | 1998 | | | US 5814482 A | HCAPLUS |
| Dubensky | 1998 | | | US 5843723 A | HCAPLUS |
| Ellman | 1994 | | | US 5288514 A | HCAPLUS |
| Evans | 1989 | | | US 4870009 A | HCAPLUS |
| Felgner | 1996 | | | US 5580859 A | HCAPLUS |
| Fell | 1993 | | | US 5204244 A | HCAPLUS |
| Fell | 1996 | | | US 5482856 A | HCAPLUS |
| Fernandez-Pol | 1993 | | | US 5243041 A | HCAPLUS |
| Fisher-Hoch | 1989 | 86 | 317 | PNAS | HCAPLUS |
| Flexner | 1990 | 8 | 17 | Vaccine | MEDLINE |
| Forster | 1987 | 49 | 211 | Cell | HCAPLUS |
| Frackelton | 1985 | | | US 4543439 A | HCAPLUS |
| Fritzberg | 1990 | | | US 4897255 A | HCAPLUS |
| Gerlach | 1987 | 328 | 802 | Nature | HCAPLUS |
| Gillis | 1983 | | | US 4411993 A | HCAPLUS |
| Gruber | 1998 | | | US 5716826 A | |
| Guber | 1998 | | | US 5716613 A | HCAPLUS |
| Guber | 1998 | | | US 5851529 A | HCAPLUS |
| Gunner Von, H | 1985 | 184 | 99 | Journal of Molecular | |
| Hamilton | 1998 | | | US 5770380 A | HCAPLUS |
| Hammer | 1985 | 315 | 680 | Nature | HCAPLUS |
| Haseloff | 1993 | | | US 5254678 A | HCAPLUS |
| Haseloff | 1988 | 334 | 585 | Nature | HCAPLUS |
| Hew | 1996 | | | US 5545808 A | HCAPLUS |
| Hirashima | 1987 | | 401 | Molecular Biology of | |
| Hopp | 1989 | | | US 4851341 A | HCAPLUS |

| | | | | | |
|---------------|------|------|------|-----------------------|---------|
| Hopp | 1988 | 6 | 1204 | BioTechnology | HCAPLUS |
| Horwitz | 1989 | 3 | 112 | Genome | |
| Huang | 1993 | | | US 5217879 A | HCAPLUS |
| Huse | 1989 | 246 | 1275 | Science | HCAPLUS |
| Inman | 1974 | 34 | 30 | Methods in Enzymology | HCAPLUS |
| Jean | 2001 | 268 | 544 | European Journal of | HCAPLUS |
| Jones | 1986 | 321 | 522 | Nature | HCAPLUS |
| Karatzas | 1998 | | | US 5780009 A | HCAPLUS |
| Kit, S | 1989 | 215 | 219 | Adv Exp Med Biol | |
| Kohler | 1975 | 256 | 495 | Nature | MEDLINE |
| Krimpenfort | 1992 | | | US 5175384 A | HCAPLUS |
| Kuhns, W | 1998 | 195 | 216 | Biol Bull | HCAPLUS |
| Kyte | 1982 | 157 | 105 | Journal of Molecular | HCAPLUS |
| Leder | 1988 | | | US 4736866 A | HCAPLUS |
| Leder | 1992 | | | US 5087571 A | HCAPLUS |
| Leder | 1992 | | | US 5175383 A | HCAPLUS |
| Liao | 1990 | 88 | 107 | Gene | HCAPLUS |
| Little | 1998 | | | US 5840479 A | HCAPLUS |
| Look | 1996 | 6 | 707 | Biorganic and Medici | HCAPLUS |
| Luytjes | 1989 | 59 | 1107 | Cell | HCAPLUS |
| McMichael | 1983 | 309 | 13 | The New England Jour | MEDLINE |
| Miller | 1993 | | | US 5219740 A | HCAPLUS |
| Morgan | 1992 | | | US 5106951 A | HCAPLUS |
| Morrison | 1984 | 81 | 6851 | PNAS | HCAPLUS |
| Mosbach | 1992 | | | US 5110833 A | HCAPLUS |
| Moss | 1989 | 569 | 86 | Annals of the New Yo | MEDLINE |
| Mulligan | 1979 | 277 | 108 | Nature | HCAPLUS |
| Ngo | 1994 | | | US 5328834 A | HCAPLUS |
| Novotny | 1985 | 82 | 4592 | PNAS | HCAPLUS |
| Palese | 1992 | | | US 5166057 A | HCAPLUS |
| Palmiter | 1985 | 41 | 343 | Cell | HCAPLUS |
| Palmiter | 1983 | 222 | 809 | Science | HCAPLUS |
| Paoletti | 1986 | | | US 4603112 A | HCAPLUS |
| Paoletti | 1988 | | | US 4769330 A | HCAPLUS |
| Pavanasasivam | 1988 | | | US 4744981 A | HCAPLUS |
| Phillips | 1996 | 37 | 4887 | Tet Letters | HCAPLUS |
| Piecznik | 1982 | | | US 4359535 A | HCAPLUS |
| Piecznik | 1985 | | | US 4528266 A | HCAPLUS |
| Poznansky | 1991 | 65 | 532 | Journal of Virology | HCAPLUS |
| Presta | 1992 | 2 | 593 | Current Op Struct Bi | HCAPLUS |
| Queen | 1997 | | | US 5693761 A | HCAPLUS |
| Queen | 1997 | | | US 5693762 A | HCAPLUS |
| Reisner | 1998 | | | US 5849288 A | HCAPLUS |
| Riechmann | 1988 | 332 | 323 | Nature | HCAPLUS |
| Robinson | 1997 | | | US 5698435 A | HCAPLUS |
| Roizman | 1994 | | | US 5288641 A | HCAPLUS |
| Ruhland | 1996 | 118 | 253 | J Am Chem Soc | HCAPLUS |
| Sastry | 1989 | 86 | 5728 | PNAS | HCAPLUS |
| Savani | 1995 | XVII | 141 | Inc J Tiss Reac | |
| Scatchard | 1949 | 51 | 660 | Annals of The New Yo | |
| Schlesinger | 1992 | | | US 5091309 A | HCAPLUS |
| Smith | 1988 | | | US 4745051 A | HCAPLUS |
| Smith | 1981 | 3 | 1 | Genetic Engineering | |
| Snyder | 1989 | | | US 4816597 A | HCAPLUS |
| Sorge | 1994 | | | US 5347075 A | HCAPLUS |
| Srinivasan | 1991 | | | US 4988496 A | HCAPLUS |
| Stein | 1993 | 261 | 1004 | Science | HCAPLUS |
| Stunnenberg | 1991 | | | US 5017487 A | HCAPLUS |
| Summers | 1992 | | | US 5169784 A | HCAPLUS |
| Summerton | 1996 | | | US 5506337 A | HCAPLUS |

| | | | | | |
|-------------|------|-----|-------|----------------------|---------|
| Tomalski | 1993 | | | US 5266317 A | HCAPLUS |
| Turkey | 2000 | | | U S Patent applicati | |
| Turley | 2001 | | | US 6271344 B1 | HCAPLUS |
| Tykocinski | 1993 | | | US 5242687 A | HCAPLUS |
| Volker | 1998 | 111 | 1685 | J Cell Science | |
| Wagner | 1989 | | | US 4873191 A | HCAPLUS |
| Wakabayashi | 1990 | | | US 4902614 A | HCAPLUS |
| Walbot | 1988 | 334 | 196 | Nature | |
| Walder | 1986 | 42 | 133 | Gene | HCAPLUS |
| Wang | 1999 | | | US 5872005 A | HCAPLUS |
| Wang | 1998 | 4 | 567 | Clinical Cancer Rese | MEDLINE |
| Wigler | 1998 | | | US 5780225 A | HCAPLUS |
| Wilchek | 1988 | 171 | 1 | Analytical Biochemis | HCAPLUS |
| Winter | 1993 | | | US 5225539 A | HCAPLUS |
| Wu | 1989 | 264 | 16985 | The Journal of Biolo | HCAPLUS |
| Yap | 1978 | 273 | 238 | Nature | MEDLINE |
| Yee | 1998 | | | US 5817491 A | HCAPLUS |
| Zhao | 1996 | | | US 5567607 A | HCAPLUS |
| Zimmerman | 1985 | | | US 32011 E | HCAPLUS |

L59 ANSWER 5 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1060835 HCAPLUS

DN 142:1728

TI Branched compounds containing bioactive molecules and targeting moieties for cellular delivery

IN Vargeese, Chandra; Haeberli, Peter; Wang, Weimin; Chen, Tongqian

PA Sirna Therapeutics, Inc., USA

SO U.S. Pat. Appl. Publ., 143 pp., Cont.-in-part of U.S. Ser. No. 427,160.
CODEN: USXXCO

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LA English

FAN.CNT 238

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| | ----- | | ----- | ----- | ----- |
| PI | US 2004249178 | A1 | 20041209 | US 2004-780447 | 20040213 |
| | AU 9851819 | A1 | 19980611 | AU 1998-51819 | 19980112 <-- |
| | AU 729657 | B2 | 20010208 | | |
| | AU 9939188 | A1 | 19990916 | AU 1999-39188 | 19990713 <-- |
| | AU 769175 | B2 | 20040115 | AU 2000-56616 | 20000911 <-- |
| | US 2004110296 | A1 | 20040610 | US 2003-427160 | 20030430 |
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EP 1622572 A2 20060208 EP 2004-775924 20040430
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AU 2004266311 A1 20050303 AU 2004-266311 20040524
 CA 2526831 AA 20050303 CA 2004-2526831 20040524
 EP 1627061 A2 20060222 EP 2004-776102 20040524
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WO 2005045034 A2 20050519 WO 2004-US17630 20040603
 WO 2005045034 A3 20050811

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US 2005137155 A1 20050623 US 2004-861060 20040603
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US 2005143333 A1 20050630 US 2004-863973 20040609 <--
 US 2005171040 A1 20050804 US 2004-864044 20040609 <--
 US 2005119211 A1 20050602 US 2004-869638 20040616 <--
 US 2005119212 A1 20050602 US 2004-871222 20040618 <--
 CA 2528963 AA 20050113 CA 2004-2528963 20040625
 WO 2005003350 A2 20050113 WO 2004-US20516 20040625
 WO 2005003350 C1 20050519
 WO 2005003350 A3 20050804

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US 2005209179 A1 20050922 US 2004-877889 20040625 <--
 EP 1644498 A2 20060412 EP 2004-756160 20040625
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US 2005124566 A1 20050609 US 2004-879867 20040628 <--
 US 2005130181 A1 20050616 US 2004-881118 20040630 <--
 US 2006142225 A1 20060629 US 2004-881580 20040630 <--
 US 2005124567 A1 20050609 US 2004-883218 20040701 <--
 WO 2005007859 A2 20050127 WO 2004-US22247 20040709
 WO 2005007859 A3 20051201

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 US 2005124568 A1 20050609 US 2004-888226 20040709 <--
 WO 2005007855 A2 20050127 WO 2004-US22658 20040714
 WO 2005007855 A3 20050324
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 SN, TD, TG
 US 2005124569 A1 20050609 US 2004-892922 20040716 <--
 US 2005164224 A1 20050728 US 2004-893010 20040716 <--
 US 2005070497 A1 20050331 US 2004-894475 20040719 <--
 US 2005176663 A1 20050811 US 2004-897902 20040723 <--
 US 2005196765 A1 20050908 US 2004-898660 20040723 <--
 US 2005277608 A1 20051215 US 2004-898311 20040723 <--
 US 2005182006 A1 20050818 US 2004-903128 20040730 <--
 WO 2005014811 A2 20050217 WO 2004-US25589 20040806
 WO 2005014811 A3 20051222
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 US 2005159378 A1 20050721 US 2004-915896 20040811 <--
 US 2005159379 A1 20050721 US 2004-916030 20040811 <--
 US 2005158735 A1 20050721 US 2004-916095 20040811 <--
 US 2005153914 A1 20050714 US 2004-918969 20040816 <--
 US 2005164966 A1 20050728 US 2004-918896 20040816 <--
 US 2005203040 A1 20050915 US 2004-918987 20040816 <--
 US 2005176664 A1 20050811 US 2004-919866 20040817 <--
 US 2005176665 A1 20050811 US 2004-919964 20040817 <--
 US 2005233997 A1 20051020 US 2004-919584 20040817 <--
 AU 2004288143 A1 20050519 AU 2004-288143 20040818
 CA 2541643 AA 20050519 CA 2004-2541643 20040818
 WO 2005045036 A2 20050519 WO 2004-US27042 20040818
 WO 2005045036 A3 20060302
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EP 1675950 A2 20060705 EP 2004-781674 20040818
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CA 2543030 AA 20050519 CA 2004-2543030 20040819
 WO 2005045032 A2 20050519 WO 2004-US26941 20040819
 WO 2005045032 A3 20060302

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| WO 2003-US4909 | A2 | 20030218 |
| WO 2003-US4741 | A2 | 20030220 |
| WO 2003-US4951 | A2 | 20030220 |
| WO 2003-US5022 | A2 | 20030220 |
| WO 2003-US5028 | A2 | 20030220 |
| WO 2003-US5043 | A2 | 20030220 |
| WO 2003-US5044 | A2 | 20030220 |
| WO 2003-US5045 | A2 | 20030220 |
| WO 2003-US5162 | A2 | 20030220 |
| WO 2003-US5190 | A | 20030220 |
| WO 2003-US5234 | A2 | 20030220 |
| WO 2003-US5326 | A2 | 20030220 |
| WO 2003-US5346 | A2 | 20030220 |
| US 2003-417012 | A | 20030416 |
| US 2003-420194 | A2 | 20030422 |
| WO 2003-US12626 | A2 | 20030422 |
| US 2003-422704 | A | 20030424 |
| US 2003-424339 | A2 | 20030425 |
| US 2003-430882 | A2 | 20030506 |
| US 2003-444853 | A | 20030523 |
| US 2003-607933 | A | 20030627 |
| US 2003-486729P | P | 20030711 |
| US 2003-487214P | P | 20030714 |
| US 2003-493561P | P | 20030808 |
| US 2003-496655P | P | 20030820 |
| US 2003-652791 | A | 20030829 |
| US 2003-664767 | A | 20030916 |
| US 2003-665255 | A | 20030916 |
| US 2003-667271 | A | 20030916 |
| US 2003-670011 | A | 20030923 |
| US 2003-683990 | A2 | 20031010 |
| US 2003-512701P | P | 20031020 |
| US 2003-693059 | A | 20031023 |
| US 2003-698311 | A | 20031031 |
| US 2003-712633 | A2 | 20031113 |
| US 2003-720448 | A | 20031124 |
| US 2003-724270 | A2 | 20031126 |
| US 2003-726236 | A2 | 20031202 |
| US 2003-727780 | A2 | 20031203 |
| US 2003-738128 | A2 | 20031218 |

| | | | |
|----|--------------|----|----------|
| US | 2004-757803 | A | 20040114 |
| US | 2004-764957 | A | 20040126 |
| US | 2004-543480P | P | 20040210 |
| US | 2004-780447 | A | 20040213 |
| US | 2004-798090 | A2 | 20040311 |
| US | 2004-800487 | A2 | 20040315 |
| US | 2004-824036 | A2 | 20040414 |
| US | 2004-825485 | A2 | 20040415 |
| US | 2004-826966 | A | 20040416 |
| WO | 2004-US11848 | A2 | 20040416 |
| US | 2004-830569 | A2 | 20040423 |
| US | 2004-831620 | A | 20040423 |
| WO | 2004-US12517 | A2 | 20040423 |
| US | 2004-832522 | A2 | 20040426 |
| WO | 2004-US13456 | W | 20040430 |
| US | 2004-570086P | P | 20040511 |
| US | 2004-844076 | A | 20040511 |
| US | 2004-844072 | A | 20040512 |
| US | 2004-16390 | A | 20040524 |
| WO | 2004-US16390 | W | 20040524 |
| WO | 2004-US17630 | W | 20040603 |
| US | 2004-863973 | A2 | 20040609 |
| US | 2004-864044 | A | 20040609 |
| WO | 2004-US20516 | W | 20040625 |
| US | 2004-894475 | A2 | 20040719 |
| US | 2004-919866 | A | 20040817 |
| WO | 2004-US27042 | W | 20040818 |
| WO | 2004-US27404 | W | 20040819 |
| US | 2004-922675 | A2 | 20040820 |
| US | 2004-923475 | A2 | 20040820 |
| US | 2004-923536 | A2 | 20040820 |
| WO | 2004-US26930 | W | 20040820 |
| WO | 2004-US27231 | W | 20040820 |
| WO | 2004-US27333 | W | 20040820 |
| WO | 2004-US27367 | W | 20040820 |
| WO | 2004-US27403 | W | 20040820 |
| WO | 2004-US31012 | W | 20040915 |
| US | 2004-944611 | A2 | 20040916 |
| WO | 2004-US30488 | W | 20040916 |
| US | 2005-31668 | A1 | 20050106 |
| US | 2005-39680 | A2 | 20050118 |
| WO | 2005-US4270 | A2 | 20050209 |
| US | 2005-98303 | A2 | 20050404 |

OS MARPAT 142:1728

AB Branched compds. comprising **conjugates** of bioactive mols. (such as ribozymes or siRNA's) and targeting moieties are disclosed. Thus, siRNA **conjugated** to branched structures containing cholesterol or fatty alkyl group were prepared These siRNA **conjugates** exhibited vastly improved liver pharmacokinetics in mice relative to the **unconjugated** siRNAs.

IT 123251-89-8

RL: PRP (Properties)
(unclaimed sequence; branched compds. containing bioactive mols. and targeting moieties for cellular delivery)

IT 123251-89-8

RL: PRP (Properties)
(unclaimed sequence; branched compds. containing bioactive mols. and targeting moieties for cellular delivery)

RN 123251-89-8 HCAPLUS

CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminy-L-

Absolute stereochemistry.

The image displays three chemical structures of thiazolidine derivatives, labeled 1, 2, and 3. Each structure features a central thiazolidine ring with a carboxamide group at position 3 and two 3-aminopropyl groups at positions 2 and 4. The thiazolidine ring is substituted with a 4-aminobutyl group at position 5. The structures are shown in a vertical arrangement, with the top structure (1) having a 4-aminobutyl group at position 5, the middle structure (2) having a 4-aminobutyl group at position 5, and the bottom structure (3) having a 4-aminobutyl group at position 5.

NC(=O)SCCNC(=O)N

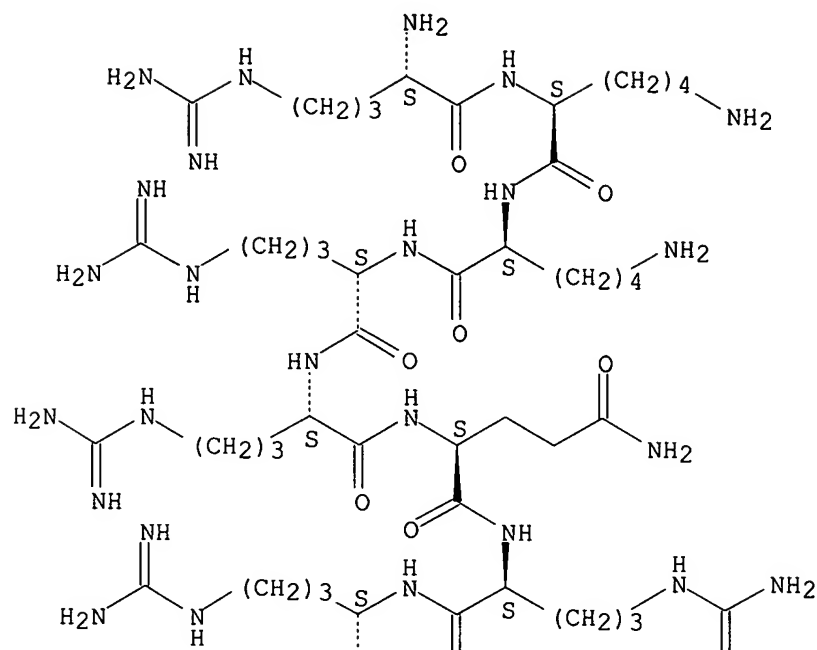
L59 ANSWER 6 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:936107 HCAPLUS
DN 141:389814
TI Ionic complexes of macromolecules for transdermal delivery of therapeutic
nucleic acids or proteins
IN Waugh, Jacob; Dake, Michael
PA Essentia Biosystems, Inc., USA
SO U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of U.S. Ser. No. 910,432.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 4

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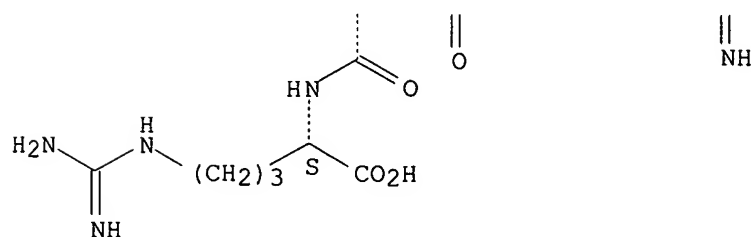
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 WO 2005084361 A3 20060316
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 US 2001-910432 A2 20010720 <--
 US 2004-793138 A 20040303
 AB Methods of delivering therapeutic nucleic acids across the skin are
 described. The complexes have a core component that is pos. charged at
 physiol. pH. This forms a complex with neg. charged moieties that may
 include: an imaging agent; a targeting agent; a nucleic acid such as a
 ribozyme, an antisense nucleic acid, or an expression cassette; an
 expression cassette for a persistence factor gene that maintains the
 nucleic acid as an episome; or some other therapeutic agent. The compns.
 can be prepared with components useful for targeting the delivery of the
 compns. as well as imaging components. Use of a C- and N-terminal
 modified polylysine (150000 mol. weight) to deliver plasmids to aortic smooth
 muscle cells is demonstrated. Similar carriers were used to deliver the
 cosmetic protein Botox.
 IT 123251-89-8D, N- and C-terminal glycine addition derivs.
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (complexes with nucleic acids; ionic complexes of macromols. for
 transdermal delivery of therapeutic nucleic acids)
 IT 123251-89-8D, N- and C-terminal glycine addition derivs.
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (complexes with nucleic acids; ionic complexes of macromols. for
 transdermal delivery of therapeutic nucleic acids)
 RN 123251-89-8 HCAPLUS
 CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-
 arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 7 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:817391 HCAPLUS
 DN 141:320008
 TI Chimeric fibroblast growth factor 2 with increased cell-penetrating activity and therapeutic uses thereof
 IN Olwin, Bradley B.; Rosenthal, Richard Scott
 PA The Regents of the University of Colorado, USA
 SO U.S., 42 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| PI | US 6800286 | B1 | 20041005 | US 1999-377675 | 19990819 <-- |
| PRAI | US 1998-97160P | P | 19980819 | <-- | |
| AB | A chimeric fibroblast growth factor protein and recombinant nucleic acid | | | | |

mol. encoding the same are disclosed. The chimeric fibroblast growth factor protein is characterized by: fibroblast growth factor biol. activity in the absence of heparan sulfate and, entry into a living cell in the absence of a receptor that binds to FGF. Also disclosed are a method of making the chimeric fibroblast growth factor protein and methods of using the chimeric fibroblast growth factor protein to promote fibroblast growth factor activity in a cell and to enhance a biol. process associated with fibroblast growth factor activity.

IT 123251-89-8

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(amino acid sequence; chimeric fibroblast growth factor 2 with increased cell-penetrating activity and therapeutic uses thereof)

IT 123251-89-8

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

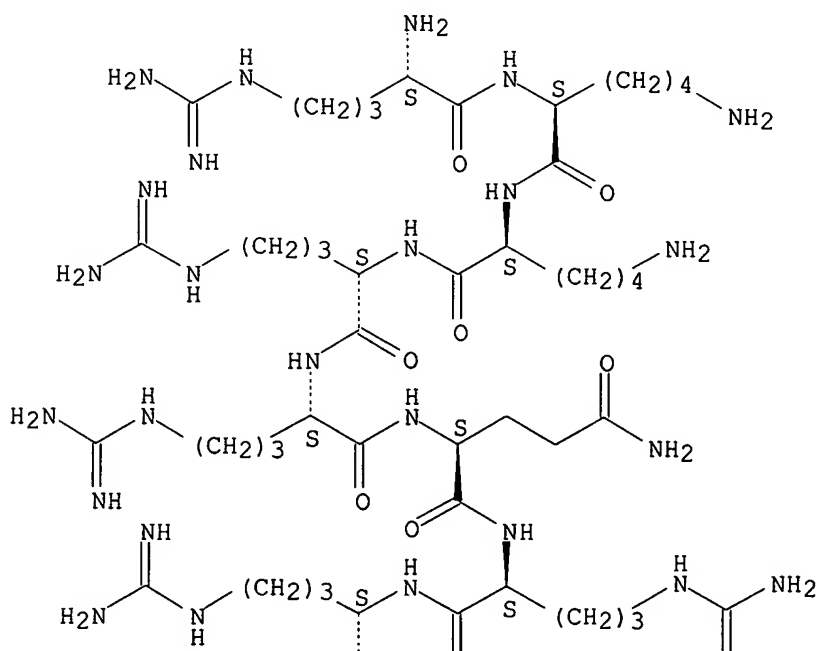
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RN 123251-89-8 HCAPLUS

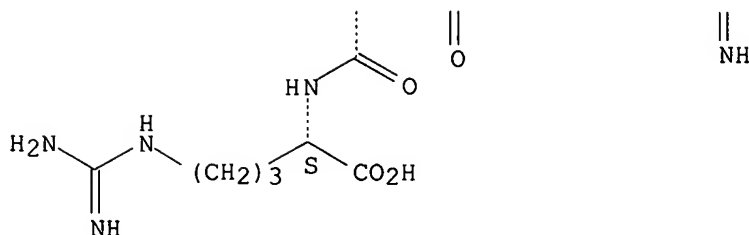
CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| ===== | ----- | ----- | ----- | ----- | ----- |
| Anon | 1991 | | | WO 9118981 | HCAPLUS |
| Anon | 1997 | | | WO 9712912 | HCAPLUS |
| Derossi | 1994 | 269 | 10444 | J Biol Chem | HCAPLUS |
| Femig | 1994 | 5 | 353 | Progress in Growth F | |
| Fiddes | 1997 | | | US 5604293 A | HCAPLUS |
| Frankel | 1998 | | | US 5804604 A | HCAPLUS |
| Joliot | 1999 | | | US 5888762 A | HCAPLUS |
| Perez | 1992 | 102 | 717 | J Cell Sci | HCAPLUS |

L59 ANSWER 8 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:802546 HCAPLUS

DN 141:319980

TI RNA interference-mediated inhibition of gene expression using chemically modified short interfering nucleic acids

IN Mcswiggen, James; Chowrira, Bharat; Beigelman, Leonid; Macejak, Dennis; Zinnen, Shawn; Pavco, Pamela; Haeberli, Peter; Morrissey, David; Fosnaugh, Kathy; Jamison, Sharon; Usman, Nassim; Thompson, James; Vargeese, Chandra; Wang, Weimin; Chen, Tongqian; Vaish, Narendra

PA USA

SO U.S. Pat. Appl. Publ., 407 pp., Cont.-in-part of U.S. Ser. No. 427,160.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 238

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|-------|---|-------|----------|-----------------|--------------|
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| PI | US 2004192626 | A1 | 20040930 | US 2003-444853 | 20030523 |
| | AU 9851819 | A1 | 19980611 | AU 1998-51819 | 19980112 <-- |
| | AU 729657 | B2 | 20010208 | | |
| | AU 9939188 | A1 | 19990916 | AU 1999-39188 | 19990713 <-- |
| | AU 769175 | B2 | 20040115 | AU 2000-56616 | 20000911 <-- |
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| | WO 2003070918 | A3 | 20040708 | | |
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 AU 2003245512 A1 20031231 AU 2003-245512 20030616
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 US 2005080031 A1 20050414 US 2003-724270 20031126 <--
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 US 2005014172 A1 20050120 US 2004-798090 20040311
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| | | | | |
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| US 2005054598 | A1 | 20050310 | US 2004-830569 | 20040423 |
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| | | | | |
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| US 2005261219 | A1 | 20051124 | US 2004-1347 | 20041201 <-- |
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| US 2006019913 | A1 | 20060126 | US 2005-31668 | 20050106 <-- |
| US 2006025361 | A1 | 20060202 | US 2005-35813 | 20050114 <-- |
| US 2005287128 | A1 | 20051229 | US 2005-54047 | 20050209 <-- |
| US 2005260620 | A1 | 20051124 | US 2005-58582 | 20050215 <-- |
| US 2005277133 | A1 | 20051215 | US 2005-63415 | 20050222 <-- |
| US 2005282188 | A1 | 20051222 | US 2005-98303 | 20050404 <-- |
| US 2006019917 | A1 | 20060126 | US 2005-140328 | 20050527 <-- |
| US 2006148743 | A1 | 20060706 | US 2005-217936 | 20050901 <-- |
| PRAI WO 2003-US5028 | A2 | 20030220 | | |
| WO 2003-US5346 | A2 | 20030220 | | |
| US 2003-417012 | A1 | 20030416 | | |
| US 2003-422704 | A2 | 20030424 | | |
| US 2003-427160 | A2 | 20030430 | | |
| AU 1995-26422 | A3 | 19950518 | <-- | |
| US 1996-623891 | A | 19960325 | <-- | |
| AU 1996-76662 | A3 | 19961025 | <-- | |
| US 2000-181797P | P | 20000211 | <-- | |
| US 2001-780533 | B2 | 20010209 | <-- | |
| WO 2001-US4273 | A2 | 20010209 | <-- | |
| US 2001-827395 | B2 | 20010405 | <-- | |
| US 2001-292217P | P | 20010518 | <-- | |
| US 2001-294140P | P | 20010529 | <-- | |

| | | | |
|-----------------|----|----------|-----|
| US 2001-296249P | P | 20010606 | <-- |
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| US 2001-311865P | P | 20010813 | <-- |
| US 2001-930423 | B2 | 20010815 | <-- |
| US 2001-318471P | P | 20010910 | <-- |
| US 2001-334461P | P | 20011130 | <-- |
| US 2002-358580P | P | 20020220 | |
| US 2002-362016P | P | 20020306 | |
| US 2002-363124P | P | 20020311 | |
| WO 2002-US9187 | A2 | 20020326 | |
| WO 2002-US10512 | A2 | 20020403 | |
| US 2002-374722P | P | 20020422 | |
| US 2002-151116 | A2 | 20020517 | |
| WO 2002-US15876 | A2 | 20020520 | |
| US 2002-157580 | A2 | 20020529 | |
| WO 2002-US16840 | A2 | 20020529 | |
| WO 2002-US17674 | A2 | 20020529 | |
| US 2002-163552 | A2 | 20020606 | |
| US 2002-386782P | P | 20020606 | |
| US 2002-389198P | P | 20020617 | |
| US 2002-393796P | P | 20020703 | |
| US 2002-393924P | P | 20020703 | |
| US 2002-396600P | P | 20020717 | |
| US 2002-396905P | P | 20020718 | |
| US 2002-201394 | A2 | 20020722 | |
| US 2002-398036P | P | 20020723 | |
| US 2002-205309 | A2 | 20020725 | |
| US 2002-206705 | A2 | 20020726 | |
| US 2002-399348P | P | 20020729 | |
| US 2002-401093P | P | 20020805 | |
| US 2002-401104P | P | 20020805 | |
| US 2002-404039P | P | 20020815 | |
| US 2002-225023 | A2 | 20020821 | |
| US 2002-406784P | P | 20020829 | |
| US 2002-408378P | P | 20020905 | |
| US 2002-409293P | P | 20020909 | |
| US 2002-409493P | P | 20020909 | |
| US 2002-238700 | A2 | 20020910 | |
| US 2002-409785P | P | 20020911 | |
| US 2002-411275P | P | 20020917 | |
| US 2002-411707P | P | 20020918 | |
| US 2002-251117 | A2 | 20020919 | |
| US 2002-412304P | P | 20020920 | |
| US 2002-413714P | P | 20020926 | |
| US 2002-418655P | P | 20021015 | |
| US 2002-277494 | B2 | 20021021 | |
| US 2002-287949 | A2 | 20021104 | |
| US 2002-425559P | P | 20021112 | |
| US 2002-427467P | P | 20021119 | |
| US 2002-306747 | A2 | 20021127 | |
| US 2002-429359P | P | 20021128 | |
| US 2002-431105P | P | 20021205 | |
| US 2003-439922P | P | 20030114 | |
| US 2003-440129P | P | 20030115 | |
| WO 2003-US2510 | A2 | 20030128 | |
| WO 2003-US3473 | A2 | 20030205 | |
| WO 2003-US3662 | A2 | 20030206 | |
| WO 2003-US4034 | A2 | 20030211 | |
| WO 2003-US4088 | A2 | 20030211 | |

| | | |
|-----------------|----|----------|
| WO 2003-US4123 | A2 | 20030211 |
| WO 2003-US4347 | A2 | 20030211 |
| WO 2003-US4566 | A2 | 20030211 |
| WO 2003-US7273 | A2 | 20030211 |
| WO 2003-US4250 | A2 | 20030213 |
| WO 2003-US4317 | A2 | 20030213 |
| WO 2003-US4397 | A2 | 20030213 |
| WO 2003-US4402 | A2 | 20030213 |
| WO 2003-US4448 | A2 | 20030213 |
| WO 2003-US4710 | A2 | 20030218 |
| WO 2003-US4738 | A2 | 20030218 |
| WO 2003-US4907 | A2 | 20030218 |
| WO 2003-US4908 | A2 | 20030218 |
| WO 2003-US4909 | A2 | 20030218 |
| WO 2003-US4741 | A2 | 20030220 |
| WO 2003-US4951 | A2 | 20030220 |
| WO 2003-US5022 | A2 | 20030220 |
| WO 2003-US5043 | A2 | 20030220 |
| WO 2003-US5044 | A2 | 20030220 |
| WO 2003-US5045 | A2 | 20030220 |
| WO 2003-US5162 | A2 | 20030220 |
| WO 2003-US5190 | A | 20030220 |
| WO 2003-US5234 | A2 | 20030220 |
| WO 2003-US5326 | A2 | 20030220 |
| US 2003-462874P | P | 20030415 |
| US 2003-420194 | A2 | 20030422 |
| WO 2003-US12626 | A2 | 20030422 |
| US 2003-424339 | A | 20030425 |
| US 2003-430882 | A2 | 20030506 |
| US 2003-444853 | A | 20030523 |
| WO 2003-US18911 | W | 20030616 |
| US 2003-607933 | A2 | 20030627 |
| US 2003-485667P | P | 20030709 |
| US 2003-486729P | P | 20030711 |
| US 2003-652791 | A2 | 20030829 |
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| US 2003-665255 | A2 | 20030916 |
| US 2003-667271 | A2 | 20030916 |
| US 2003-664668 | A2 | 20030918 |
| US 2003-665951 | A2 | 20030918 |
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| US 2003-683990 | A2 | 20031010 |
| US 2003-512701P | P | 20031020 |
| US 2003-693059 | A2 | 20031023 |
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| | | |
|-----------------|----|----------|
| US 2004-825485 | A2 | 20040415 |
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| US 2004-944611 | A2 | 20040916 |
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| US 2005-39680 | A2 | 20050118 |
| WO 2005-US4270 | A2 | 20050209 |
| US 2005-98303 | A2 | 20050404 |

AB The present invention concerns methods and reagents useful in modulating gene expression in a variety of applications, including use in therapeutic, diagnostic, target validation, and genomic discovery applications. Specifically, the invention relates to synthetic chemical modified small nucleic acid mols., such as short interfering nucleic acid (siNA), short interfering RNA (siRNA), double-stranded RNA (dsRNA), micro-RNA (miRNA), and short hairpin RNA (shRNA) mols. capable of mediating RNA interference (RNAi) against target nucleic acid sequences. Introduction of chemical modified nucleotides into nucleic acid mols. provides a powerful tool in overcoming potential limitations of in vivo stability and bioavailability inherent to native RNA mols. Unlike native unmodified siRNA, chemical modified siNA can also minimize the possibility of activating interferon activity in humans. Modifications are described including pyrimidine or purine nucleotides with 2'-deoxy-2'-fluoro or 2'-O-Me groups, phosphorothioate backbone modification, terminal residues comprising inverted deoxy thymidine or inverted deoxy abasic moieties, linking the sense and antisense strands with glyceryl succinate or dodecanoic acid or other linkers, and **conjugation** of targeting ligands (N-acetylgalactosamine, pteric acid, peptides, or phospholipids) to the oligonucleotide termini. Thus, the serum stability of siNA constructs consisting of all RNA nucleotides containing two thymidine nucleotide overhangs have a half-life in human serum of 15 s, whereas chemical modified siNA constructs remained stable in serum for 1 to 3 days depending on the extent of modification. The small nucleic acid mols. are useful in the treatment of any disease or condition that responds to modulation of gene expression or activity in a cell, tissue, or organism. Three nuclease-resistant siNA mols. targeting site 1580 of hepatitis B virus RNA are designed using Stab 7/8 chemical and a 5'-terminal **conjugate** moiety (a branched cholesterol **conjugate**, a branched phospholipid **conjugate**, and a polyethylene glycol **conjugate**) showed significant stability in human and mouse serum (t_{1/2} = 10-408 h) and human liver extract (t_{1/2} = 28-43 h); the most stable siNA with all purine positions in the antisense strand with 2'-O-Me nucleotides had a half-life of 816 h in human liver extract

IT 123251-89-8

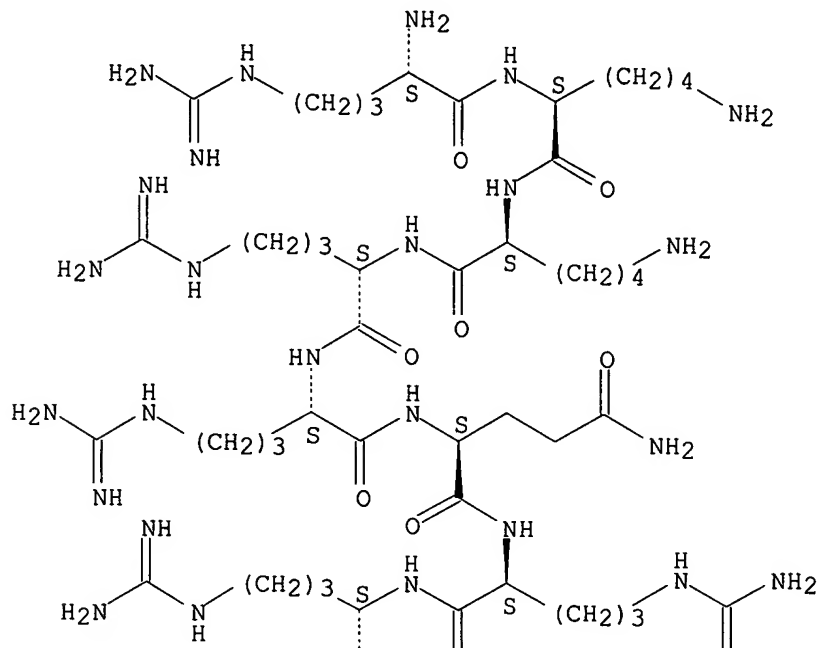
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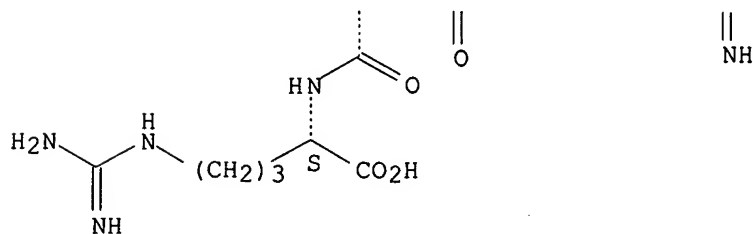
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 CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-
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Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 9 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:473253 HCAPLUS
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 for cellular delivery
 IN Vargeese, Chandra; Haerberli, Peter; Wang, Weimin; Chen, Tongqian
 PA Ribozyme Pharmaceuticals, Inc., USA

jan delaval - 7 september 2006

SO U.S. Pat. Appl. Publ., 142 pp., Cont.-in-part of WO 2003 70,918.

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DT Patent

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| | AU 9851819 | A1 | 19980611 | AU 1998-51819 | 19980112 <-- |
| | AU 729657 | B2 | 20010208 | | |
| | AU 9939188 | A1 | 19990916 | AU 1999-39188 | 19990713 <-- |
| | AU 769175 | B2 | 20040115 | AU 2000-56616 | 20000911 <-- |
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| | US 2004192626 | A1 | 20040930 | US 2003-444853 | 20030523 |
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 US 2006160757 A1 20060720 US 2004-825485 20040415
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 US 2005137153 A1 20050623 US 2004-840731 20040506
 US 2005171039 A1 20050804 US 2004-844076 20040511
 US 2005159376 A1 20050721 US 2004-844072 20040512
 US 2005137155 A1 20050623 US 2004-861060 20040603
 US 2005143333 A1 20050630 US 2004-863973 20040609 <--
 US 2005171040 A1 20050804 US 2004-864044 20040609 <--
 US 2005119211 A1 20050602 US 2004-869638 20040616 <--
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|---------------|----|----------|----------------|--------------|
| US 2005124566 | A1 | 20050609 | US 2004-879867 | 20040628 <-- |
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| US 2005158735 | A1 | 20050721 | US 2004-916095 | 20040811 <-- |
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| US 2005176664 | A1 | 20050811 | US 2004-919866 | 20040817 <-- |
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| US 2005233997 | A1 | 20051020 | US 2004-919584 | 20040817 <-- |
| US 2005136436 | A1 | 20050623 | US 2004-923640 | 20040819 <-- |
| US 2005153915 | A1 | 20050714 | US 2004-922544 | 20040819 <-- |
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| US 2005170371 | A1 | 20050804 | US 2004-922340 | 20040820 <-- |
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| US 2005187174 | A1 | 20050825 | US 2004-923181 | 20040820 <-- |
| US 2005191618 | A1 | 20050901 | US 2004-923473 | 20040820 <-- |
| US 2005196767 | A1 | 20050908 | US 2004-923380 | 20040820 <-- |
| US 2005227935 | A1 | 20051013 | US 2004-923470 | 20040820 <-- |
| US 2005227936 | A1 | 20051013 | US 2004-923475 | 20040820 <-- |
| US 2005233344 | A1 | 20051020 | US 2004-923270 | 20040820 <-- |
| US 2005239731 | A1 | 20051027 | US 2004-923379 | 20040820 <-- |
| US 2005256068 | A1 | 20051117 | US 2004-923451 | 20040820 <-- |
| US 2005267058 | A1 | 20051201 | US 2004-922761 | 20040820 <-- |
| US 2005288242 | A1 | 20051229 | US 2004-923476 | 20040820 <-- |
| US 2005209180 | A1 | 20050922 | US 2004-942560 | 20040915 <-- |
| US 2005233998 | A1 | 20051020 | US 2004-944611 | 20040916 <-- |
| US 2005222066 | A1 | 20051006 | US 2004-962898 | 20041012 <-- |
| US 2005261219 | A1 | 20051124 | US 2004-1347 | 20041201 <-- |
| US 2005196781 | A1 | 20050908 | US 2004-14373 | 20041215 <-- |
| US 2006019913 | A1 | 20060126 | US 2005-31668 | 20050106 <-- |
| US 2006025361 | A1 | 20060202 | US 2005-35813 | 20050114 <-- |
| US 2005287128 | A1 | 20051229 | US 2005-54047 | 20050209 <-- |
| US 2005260620 | A1 | 20051124 | US 2005-58582 | 20050215 <-- |
| US 2005277133 | A1 | 20051215 | US 2005-63415 | 20050222 <-- |
| US 2005282188 | A1 | 20051222 | US 2005-98303 | 20050404 <-- |
| US 2006019917 | A1 | 20060126 | US 2005-140328 | 20050527 <-- |

| | | | | | |
|------|-----------------|----|----------|----------------|--------------|
| | US 2006148743 | A1 | 20060706 | US 2005-217936 | 20050901 <-- |
| PRAI | WO 2002-US15876 | A2 | 20020520 | | |
| | US 2002-386782P | P | 20020606 | | |
| | US 2002-406784P | P | 20020829 | | |
| | US 2002-408378P | P | 20020905 | | |
| | US 2002-409293P | P | 20020909 | | |
| | US 2003-440129P | P | 20030115 | | |
| | WO 2003-US5028 | A2 | 20030220 | | |
| | WO 2003-US5346 | A2 | 20030220 | | |
| | AU 1995-26422 | A3 | 19950518 | <-- | |
| | US 1996-623891 | A | 19960325 | <-- | |
| | AU 1996-76662 | A3 | 19961025 | <-- | |
| | US 2000-181797P | P | 20000211 | <-- | |
| | US 2001-780533 | B2 | 20010209 | <-- | |
| | WO 2001-US4273 | A2 | 20010209 | <-- | |
| | US 2001-827395 | B2 | 20010405 | <-- | |
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| | US 2001-916466 | B1 | 20010725 | <-- | |
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| | US 2001-930423 | B2 | 20010815 | <-- | |
| | US 2001-318471P | P | 20010910 | <-- | |
| | US 2001-334461P | P | 20011130 | <-- | |
| | US 2002-358580P | P | 20020220 | | |
| | US 2002-362016P | P | 20020306 | | |
| | US 2002-363124P | P | 20020311 | | |
| | WO 2002-US9187 | A2 | 20020326 | | |
| | WO 2002-US10512 | A2 | 20020403 | | |
| | US 2002-374722P | P | 20020422 | | |
| | US 2002-151116 | A2 | 20020517 | | |
| | US 2002-157580 | A2 | 20020529 | | |
| | WO 2002-US16840 | A2 | 20020529 | | |
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| | US 2002-393796P | P | 20020703 | | |
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| | US 2002-238700 | A2 | 20020910 | | |
| | US 2002-409785P | P | 20020911 | | |
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| | US 2002-412304P | P | 20020920 | | |
| | US 2002-413714P | P | 20020926 | | |
| | US 2002-418655P | P | 20021015 | | |
| | US 2002-277494 | B2 | 20021021 | | |
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| | | |
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| US 2002-425559P | P | 20021112 |
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| WO 2003-US4907 | A2 | 20030218 |
| WO 2003-US4908 | A2 | 20030218 |
| WO 2003-US4909 | A2 | 20030218 |
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| US | 2003-726236 | A2 | 20031202 |
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AB Branched compds. comprising **conjugates** of bioactive mols. (such as ribozymes or siRNA's) and targeting moieties are disclosed. Thus, siRNA **conjugated** to branched structures containing cholesterol or fatty alkyl group were prepared These siRNA **conjugates** exhibited vastly improved liver pharmacokinetics in mice relative to the **unconjugated** siRNAs.

IT 123251-89-8

RL: PRP (Properties)
(unclaimed sequence; branched compds. containing bioactive mols. and targeting moieties for cellular delivery)

IT 123251-89-8

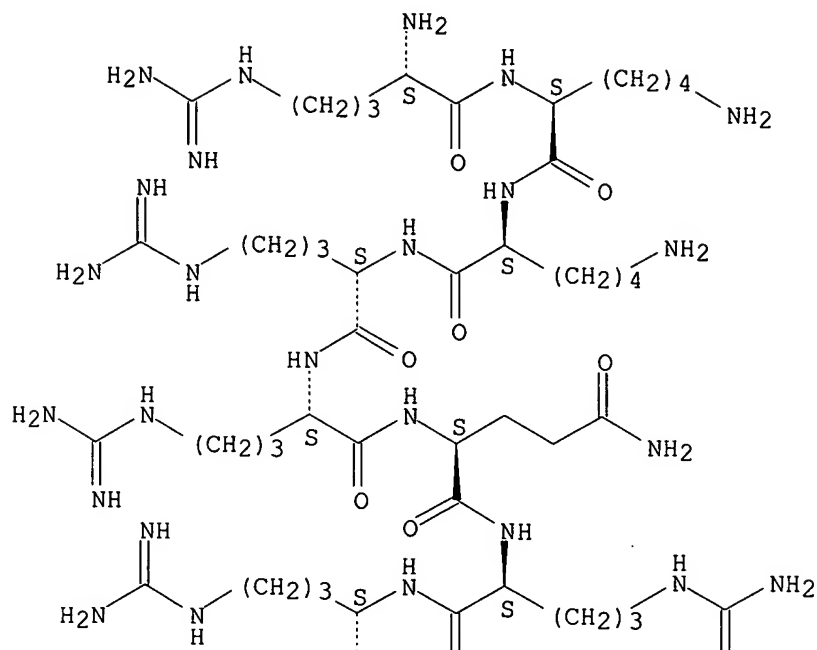
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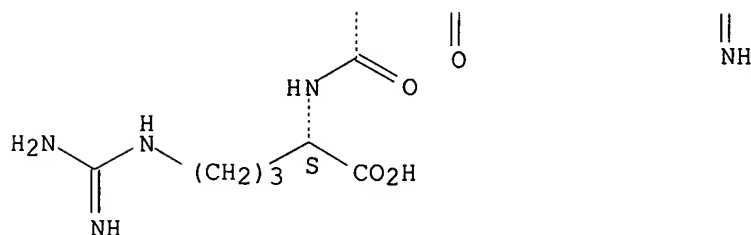
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PAGE 1-A



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WO 2002068680 A3 20031016

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003026781 A1 20030206 US 2002-83815 20020227 <--

PRAI US 1999-164622P P 19991110 <--

US 2000-709189 B2 20001110 <--

US 2001-796076 A 20010227 <--

AB The present invention provides compns. and methods for altering mitochondrial ATP metabolism, including compns. having fusion proteins comprising IF1 (ATPase F1 inhibitor)-derived sequences, as well as binding and functional assays exploiting IF1 interactions with ATP synthase. Also disclosed are methods for screening assays for a compound capable of reducing mitochondrial ATP hydrolysis and/or increasing mitochondrial ATP synthesis, including pharmaceutical compns. identified by such methods. The invention also provides methods for treating diabetes, and in particular, type 2 diabetes mellitus, using an agent identified according to the disclosed methods. An IF1 fusion protein containing a His tag sequence, a tat cell transport sequence, a mitochondrial targeting sequence and a peptide of rat IF1 was prepared and tested in INS-1 cells. The fusion protein induced glucose stimulated insulin secretion in a dose dependent manner.

IT 455876-60-5

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(cell transport sequence, in IF1 fusion protein; fusion proteins comprising IF1 peptides for regulating endogenous inhibitor of ATP synthase, and methods of treatment of diabetes)

IT 455876-60-5

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

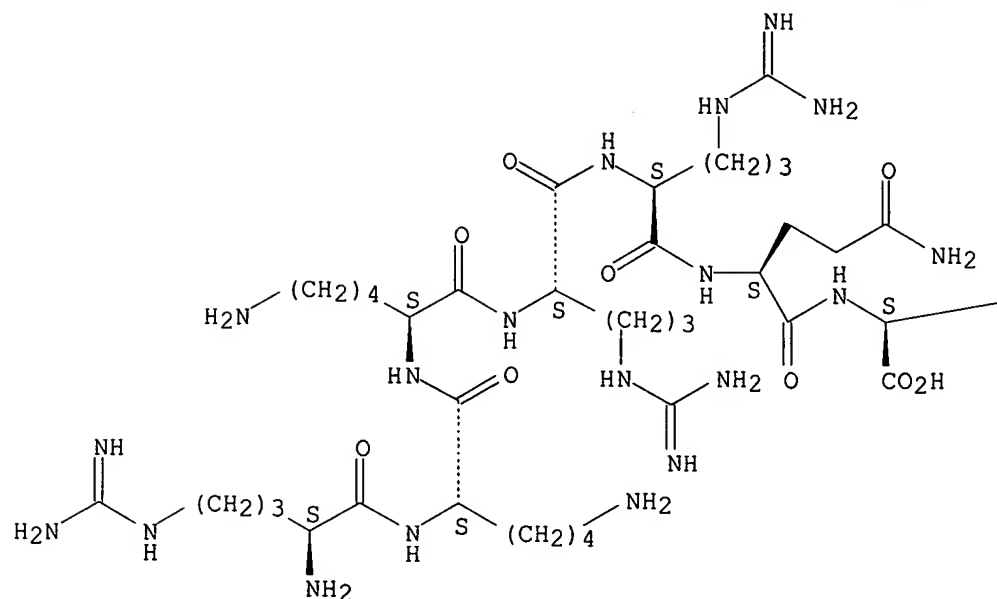
(cell transport sequence, in IF1 fusion protein; fusion proteins comprising IF1 peptides for regulating endogenous inhibitor of ATP synthase, and methods of treatment of diabetes)

RN 455876-60-5 HCAPLUS

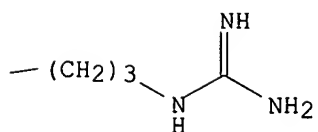
CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyll-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

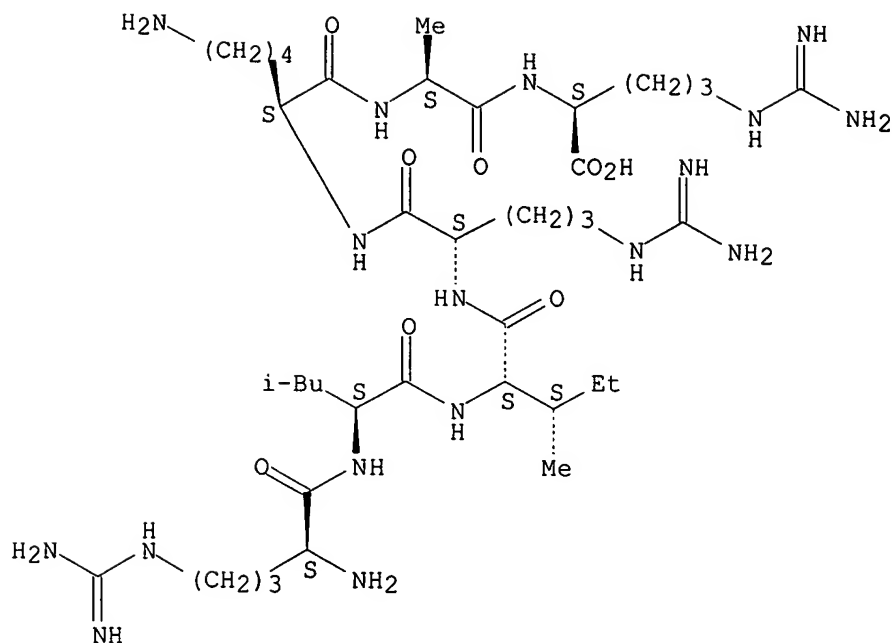


L59 ANSWER 11 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:950457 HCAPLUS
 DN 140:26909
 TI Antibodies that immunospecifically bind to BlyS and their use in diagnosis
 and treatment of autoimmune disease
 IN Ruben, Steven M.; Barash, Steven C.; Choi, Gil H.; Vaughan, Tristan;
 Hilbert, David
 PA USA
 SO U.S. Pat. Appl. Publ., 186 pp., Cont.-in-part of U.S. Ser. No. 880,748.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 19
 PATENT NO. KIND DATE APPLICATION NO. DATE

jan delaval - 7 september 2006

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| PI | US 2003223996 | A1 | 20031204 | US 2002-293418 | 20021114 <-- |
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| | AU 2001054180 | A5 | 20020725 | AU 2001-54180 | 20010703 <-- |
| | AU 779750 | B2 | 20050210 | | |
| | JP 2004129667 | A2 | 20040430 | JP 2003-362615 | 20031022 <-- |
| | US 2005255532 | A1 | 20051117 | US 2005-54515 | 20050210 <-- |
| | US 2006062789 | A1 | 20060323 | US 2005-266444 | 20051104 <-- |
| PRAI | US 2000-212210P | P | 20000616 | <-- | |
| | US 2000-240816P | P | 20001017 | <-- | |
| | US 2001-276248P | P | 20010316 | <-- | |
| | US 2001-277379P | P | 20010321 | <-- | |
| | US 2001-293499P | P | 20010525 | <-- | |
| | US 2001-880748 | A2 | 20010615 | <-- | |
| | US 2001-331469P | P | 20011116 | <-- | |
| | US 2001-340817P | P | 20011219 | <-- | |
| | AU 1996-76745 | A3 | 19961025 | <-- | |
| | EP 1996-939612 | A3 | 19961025 | <-- | |
| | JP 1998-520411 | A3 | 19961025 | <-- | |
| | US 2002-293418 | A2 | 20021114 | | |
| | US 2004-543296P | P | 20040211 | | |
| | US 2004-580347P | P | 20040618 | | |
| AB | The present invention relates to antibodies and related mols. that immunospecifically bind to BLyS (B lymphocyte stimulator). The present invention also relates to methods and compns. for detecting or diagnosing a disease or disorder associated with aberrant BLyS expression or inappropriate function of BLyS comprising antibodies or fragments or variants thereof or related mols. that immunospecifically bind to BLyS. The present invention further relates to methods and compns. for preventing, treating or ameliorating a disease or disorder associated with aberrant BLyS expression or inappropriate BLyS function comprising administering to an animal an effective amount of one or more antibodies or fragments or variants thereof or related mols. that immunospecifically bind to BLyS. | | | | |
| IT | 389116-42-1 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (amino acid sequence; antibodies that immunospecifically bind to BLyS and their use in diagnosis and treatment of autoimmune disease) | | | | |
| IT | 389116-42-1 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (amino acid sequence; antibodies that immunospecifically bind to BLyS and their use in diagnosis and treatment of autoimmune disease) | | | | |
| RN | 389116-42-1 HCAPLUS | | | | |
| CN | L-Arginine, L-arginyl-L-leucyl-L-isoleucyl-L-arginyl-L-lysyl-L-alanyl-(9CI) (CA INDEX NAME) | | | | |

Absolute stereochemistry.



L59 ANSWER 12 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:930859 HCAPLUS
 DN 140:14513
 TI Identification and therapeutic use of peptides that facilitate uptake and cytoplasmic and nuclear transport of proteins, DNA and viruses
 IN Robbins, Paul D.; Mi, Zhibao; Frizzell, Raymond; Glorioso, Joseph C.; Gambotto, Andrea; Mai, Jeffrey C.
 PA USA
 SO U.S. Pat. Appl. Publ., 140 pp., Cont.-in-part of U.S. Ser. No. 75,869.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|------|----------|-----------------|--------------|
| PI | US 2003219826 | A1 | 20031127 | US 2003-366493 | 20030212 <-- |
| | US 6881825 | B1 | 20050419 | US 2000-653182 | 20000831 <-- |
| | US 2003104622 | A1 | 20030605 | US 2002-75869 | 20020213 <-- |
| PRAI | US 1999-151980P | P | 19990901 | <-- | |
| | US 2000-188944P | P | 20000313 | <-- | |
| | US 2000-653182 | A2 | 20000831 | <-- | |
| | US 2002-75869 | A2 | 20020213 | | |

AB The present invention relates to internalizing peptides which facilitate the uptake and transport of cargo into the cytoplasm and nuclei of cells as well as methods for the identification of such peptides. The internalizing peptides of the present invention are selected for their ability to efficiently internalize cargo into a wide variety of cell types both in vivo and in vitro. The method for identification of the internalizing peptides of the present invention comprises incubating a target cell with a peptide display library, isolating peptides with internalization characteristics and determining the ability of said peptide to internalize cargo into a cell. The peptides of the invention are useful in therapeutic applications, such as: stimulating the immune response in a

subject; selectively inducing apoptosis in cells, such as cancer and arthritic cells; facilitatating transfer of proteins and peptides to the lung for treatment of cystic fibrosis, lung inflammation or injury.

IT **148796-87-6P**

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); CST (Combinatorial study, unclassified); PRP (Properties); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)

(identification and therapeutic use of peptides that facilitate uptake and cytoplasmic and nuclear transport of proteins, DNA and viruses)

IT **148796-87-6P**

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); CST (Combinatorial study, unclassified); PRP (Properties); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)

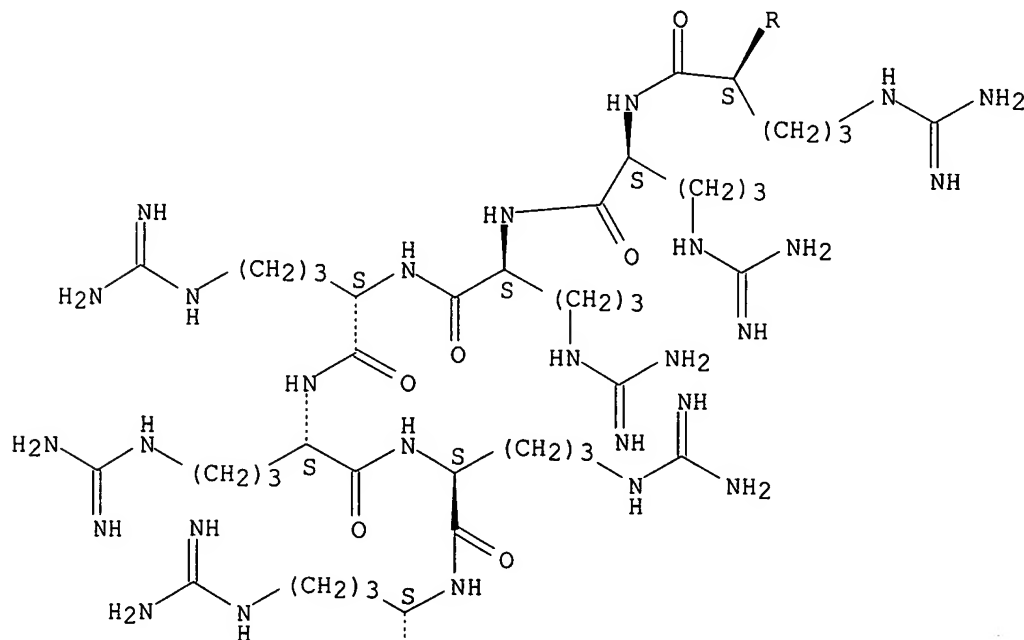
(identification and therapeutic use of peptides that facilitate uptake and cytoplasmic and nuclear transport of proteins, DNA and viruses)

RN 148796-87-6 HCAPLUS

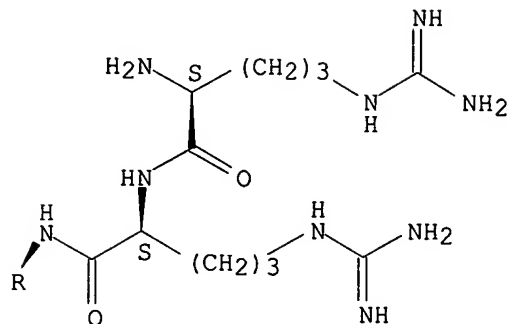
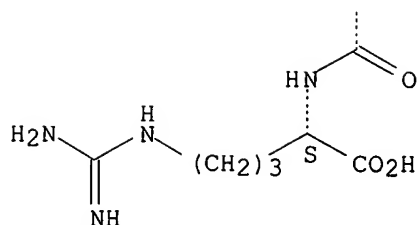
CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 13 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:930717 HCAPLUS
 DN 140:8758
 TI Membrane-permeant peptide complexes for medical imaging, diagnostics, and therapy
 IN Piwnica-Worms, David
 PA USA
 SO U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of U.S. Ser. No. 557,465.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| PI | US 2003219378 | A1 | 20031127 | US 2003-374035 | 20030225 <-- |
| | US 6348185 | B1 | 20020219 | US 1999-336093 | 19990618 <-- |
| | US 6589503 | B1 | 20030708 | US 2000-557465 | 20000425 <-- |
| | AU 2004212997 | A1 | 20040902 | AU 2004-212997 | 20040218 |
| | CA 2516282 | AA | 20040902 | CA 2004-2516282 | 20040218 |
| | WO 2004073640 | A2 | 20040902 | WO 2004-US4752 | 20040218 |
| | WO 2004073640 | A3 | 20050303 | | |
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| | RW: | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| | GB 2413076 | A1 | 20051019 | GB 2005-16702 | 20040218 |
| | US 2006166881 | A1 | 20060727 | US 2005-286920 | 20051123 <-- |
| PRAI | US 1998-90087P | P | 19980620 | <-- | |
| | US 1999-336093 | A2 | 19990618 | <-- | |

jan delaval - 7 september 2006

US 2000-557465 A2 20000425 <--
 US 2003-368280 A 20030218
 US 2003-374035 A 20030225
 WO 2004-US4752 A 20040218

AB Methods and compns. for medical imaging, evaluating intracellular processes and components, radiotherapy of intracellular targets, and drug delivery by the use of novel cell membrane-permeant peptide **conjugate** coordination and covalent complexes having target cell specificity are provided. Kits for **conjugating** radionuclides and other metals to peptide coordination complexes are also provided. Examples are provided of ⁹⁹Tc-labeled Tat peptide chelate **conjugates**, their preparation, uptake by human tumor cells, and applications in imaging.

IT 143413-47-2 627881-61-2 627881-75-8D,
 biotinylated

RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study);
 USES (Uses)

(membrane-permeant peptide complexes for medical imaging, diagnostics,
 and therapy)

IT 143413-47-2

RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study);
 USES (Uses)

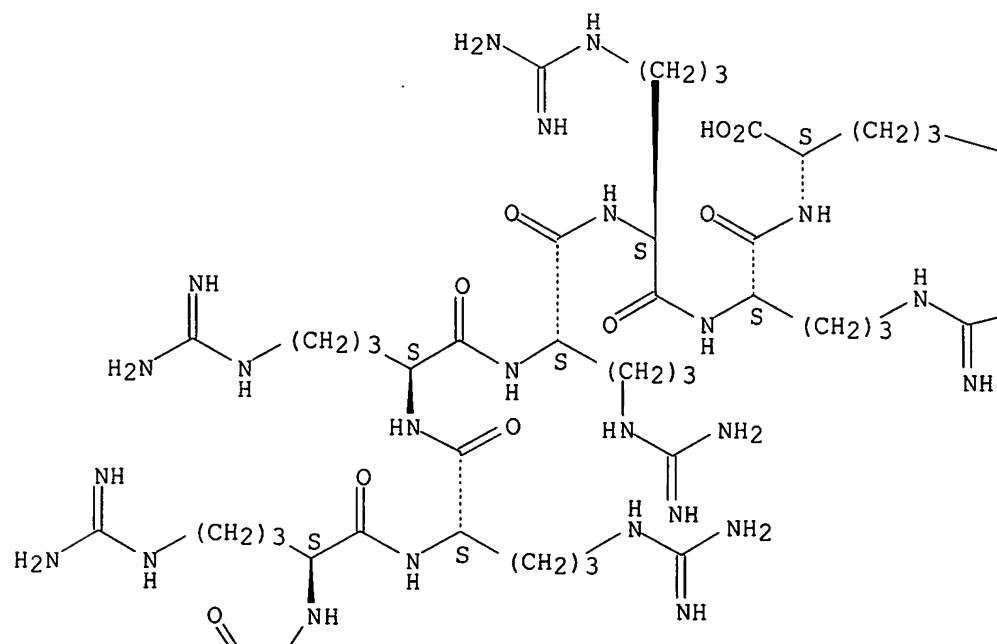
(membrane-permeant peptide complexes for medical imaging, diagnostics,
 and therapy)

RN 143413-47-2 HCAPLUS

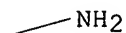
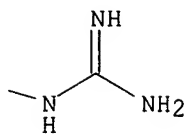
CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

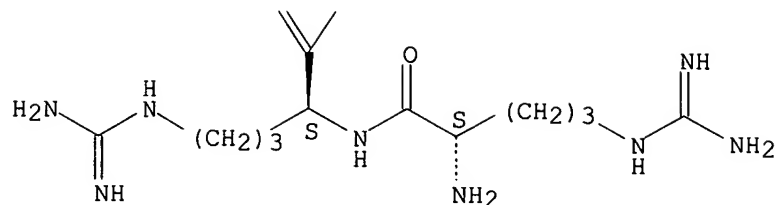
PAGE 1-A



PAGE 1-B



PAGE 2-A



L59 ANSWER 14 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:696307 HCAPLUS
 DN 139:235379
 TI Histidine copolymer for drug delivery
 IN Mixson, A. James
 PA USA
 SO U.S. Pat. Appl. Publ., 43 pp., Cont.-in-part of U.S. Ser. No. 18,103.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 2

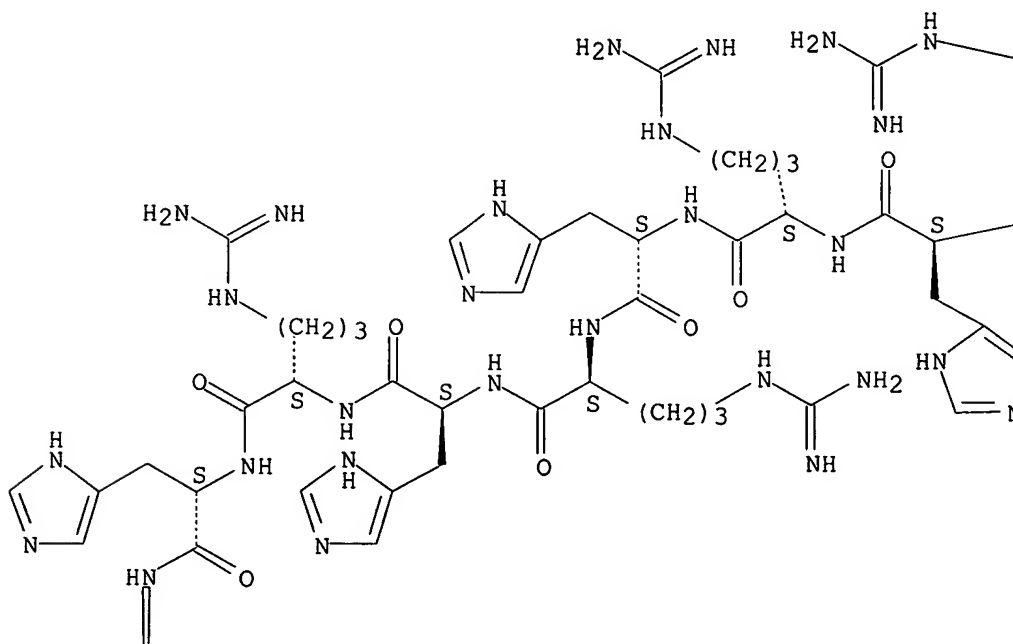
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| | US 7070807 | B2 | 20060704 | | |
| | WO 2001047496 | A1 | 20010705 | WO 2000-US34603 | 20001220 <-- |
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| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2003045465 | A1 | 20030306 | US 2001-18103 | 20011105 <-- |
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 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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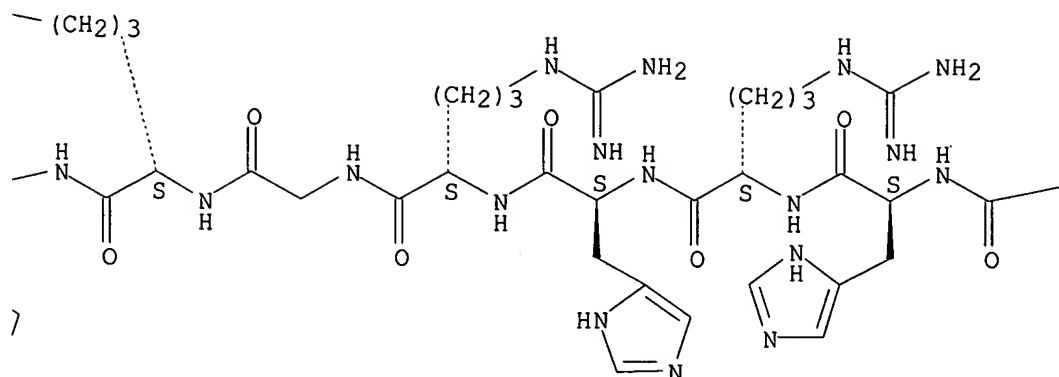
AU 2003263165 A1 20031110 AU 2003-263165 20030424
 PRAI US 1999-173576P P 19991229 <--
 WO 2000-US34603 W 20001220 <--
 US 2001-18103 A2 20011105 <--
 US 2002-131909 A 20020425
 WO 2003-US12890 W 20030424
 AB The invention provides a branched transport polymer characterized as
 having at least 10 amino acids and a ratio of histidine to non-histidine
 amino acids greater than 1.5, said branched transport polymer comprising
 one or more backbones, one or more terminal branches, and optionally, one
 or more non-terminal branches. The branched transport polymer may be
 associated with a pharmaceutical agent to form a pharmaceutical agent
 delivery composition useful for in vivo therapies based on local injection.
 IT **349451-29-2**
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (histidine copolymer for drug delivery)
 IT **349451-29-2**
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)
 (histidine copolymer for drug delivery)
 RN 349451-29-2 HCAPLUS
 CN L-Arginine, L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-
 L-arginyl-L-histidyl-L-arginylglycyl-L-arginyl-L-histidyl-L-arginyl-L-
 histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

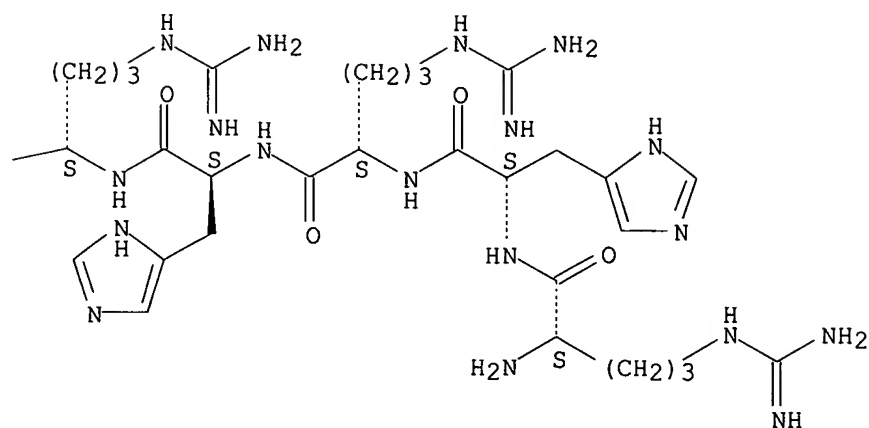
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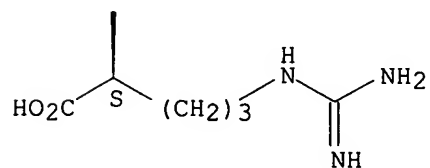
PAGE 1-B



PAGE 1-C



PAGE 2-A



L59 ANSWER 15 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:532743 HCAPLUS
 DN 139:99852

jan delaval - 7 september 2006

TI Human anti-BLyS antibodies for diagnosis, prognosis and therapy of
autoimmune, inflammatory, infectious and proliferative diseases
IN Ruben, Steven M.; Barash, Steven C.; Choi, Gil H.; Vaughan, Tristan J.;
Hilbert, David
PA Human Genome Sciences, Inc., USA
SO PCT Int. Appl., 3099 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 19

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | |
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| | AU 779750 | B2 | 20050210 | | |
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| | JP 2004129667 | A2 | 20040430 | JP 2003-362615 | 20031022 <-- |
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| | EP 1996-939612 | A3 | 19961025 | <-- | |
| | JP 1998-520411 | A3 | 19961025 | <-- | |
| | WO 2002-US36496 | W | 20021114 | | |

AB The present invention relates to antibodies and related mols. that immunospecifically bind to BLyS or B lymphocyte stimulator. The present invention also relates to methods and compns. for detecting or diagnosing a disease or disorder associated with aberrant BLyS expression or inappropriate function of BLyS comprising antibodies or fragments or variants thereof or related mols. that immunospecifically bind to BLyS. The present invention further relates to methods and compns. for preventing, treating or ameliorating a disease or disorder associated with aberrant BLyS expression or inappropriate BLyS function comprising administering to an animal an effective amount of one or more antibodies or fragments or variants thereof or related mols. that immunospecifically bind to BLyS.

IT 389116-42-1

RL: PRP (Properties)

(unclaimed sequence; human anti-BLyS antibodies for diagnosis, prognosis and therapy of autoimmune, inflammatory, infectious and proliferative diseases)

IT 389116-42-1

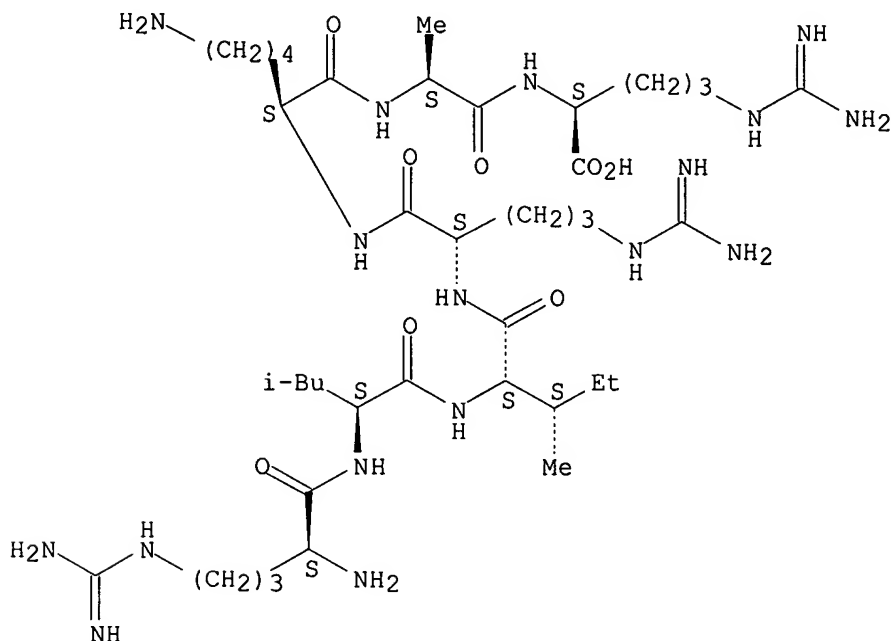
RL: PRP (Properties)

(unclaimed sequence; human anti-BlyS antibodies for diagnosis, prognosis and therapy of autoimmune, inflammatory, infectious and proliferative diseases)

RN 389116-42-1 HCAPLUS

CN L-Arginine, L-arginyl-L-leucyl-L-isoleucyl-L-arginyl-L-lysyl-L-alanyl-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RLIRLA

L59 ANSWER 16 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:511956 HCAPLUS

DN 139:65738

TI Methods of detecting a cell

IN Tse, Eric; Rabbitts, Terence

PA UK

SO U.S. Pat. Appl. Publ., 29 pp., Cont.-in-part of Appl. No. PCT/GB/01540.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----|--|------|----------|-----------------|--------------|
| PI | US 2003124629 | A1 | 20030703 | US 2002-265002 | 20021004 <-- |
| | WO 2001075453 | A2 | 20011011 | WO 2001-GB1540 | 20010404 <-- |
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PRAI GB 2000-8254 A 20000404 <--
 GB 2000-8256 A 20000404 <--
 WO 2001-GB1540 A2 20010404 <--

AB We describe a method of inducing a cell to generate a detectable signal. The method comprises the steps of providing a cell comprising an entity and providing a first reporter and a second reporter, in which a stable interaction of the first reporter with the second reporter leads to generation of a detectable signal. The first reporter and the second reporter are allowed to bind to the entity, such that binding of the reporters to the entity leads to stable interaction of the first reporter with the second reporter and generation of a signal. The signal is preferably the activation of a cell killing mechanism.

IT 123251-89-8
 RL: PRP (Properties)
 (unclaimed sequence; methods of detecting a cell)

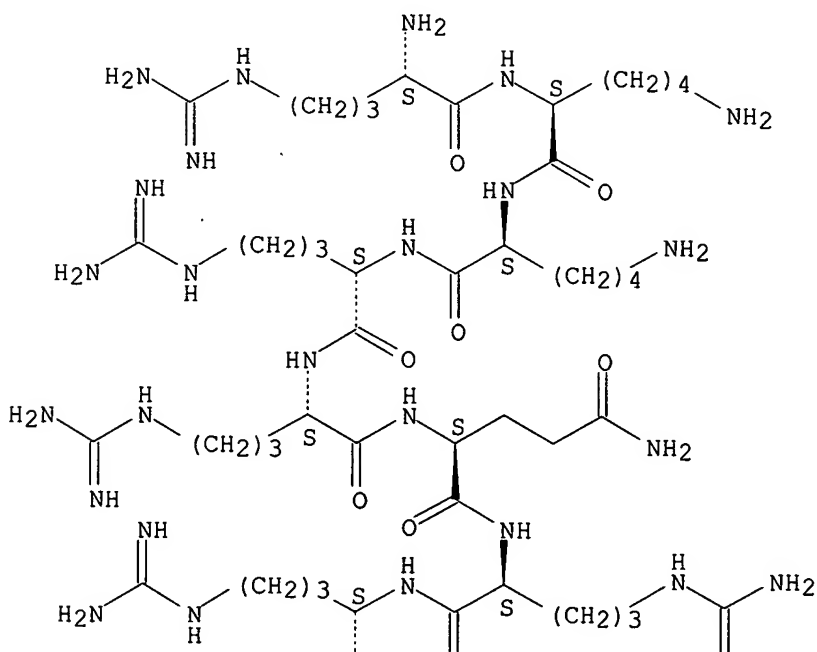
IT 123251-89-8
 RL: PRP (Properties)
 (unclaimed sequence; methods of detecting a cell)

RN 123251-89-8 HCAPLUS

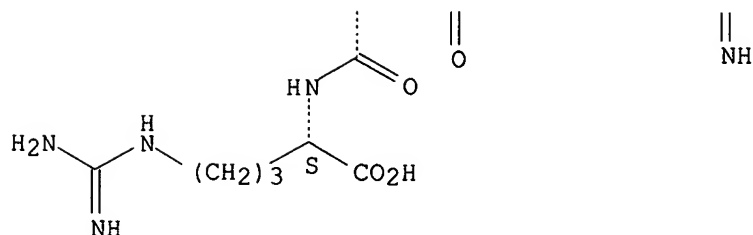
CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutamyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



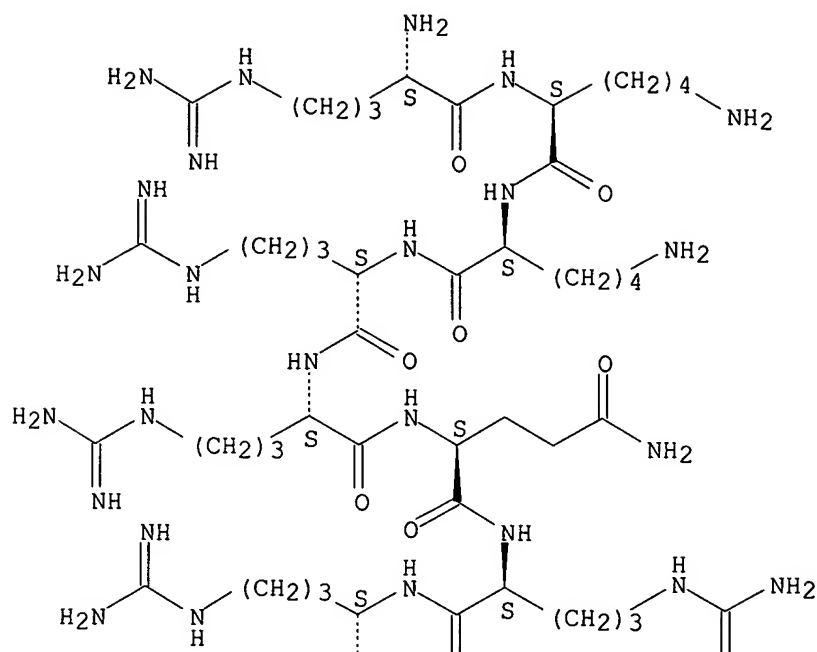
L59 ANSWER 17 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:454824 HCAPLUS
 DN 139:30852
 TI Cell-permeable peptide inhibitors of the JNK signal transduction pathway
 IN Bonny, Christophe
 PA Switz.
 SO U.S. Pat. Appl. Publ., 39 pp., Cont.-in-part of U.S. Ser. No. 503,954.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| PI | US 2003108539 | A1 | 20030612 | US 2002-165250 | 20020607 <-- |
| | US 6610820 | B1 | 20030826 | US 2000-503954 | 20000214 <-- |
| | CA 2471762 | AA | 20030717 | CA 2003-2471762 | 20030109 |
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| | US 2005106695 | A1 | 20050519 | US 2003-500804 | 20030109 |
| | JP 2005525096 | T2 | 20050825 | JP 2003-558039 | 20030109 |
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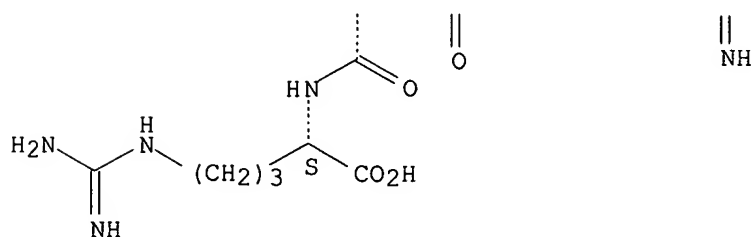
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| JP 2006501165 | T2 | 20060112 | JP 2004-510817 | 20030609 |
| US 2005043241 | A1 | 20050224 | US 2004-924028 | 20040823 <-- |
| PRAI US 2000-503954 | A2 | 20000214 | <-- | |
| US 2002-347062P | P | 20020109 | | |
| US 1999-158774P | P | 19991012 | <-- | |
| US 2001-970515 | A1 | 20011003 | <-- | |
| US 2002-165250 | A | 20020607 | | |
| WO 2003-IB332 | W | 20030109 | | |
| WO 2003-IB3094 | W | 20030609 | | |
| AB | <p>The invention provides cell-permeable peptides that bind to JNK proteins and inhibit JNK-mediated effects in JNK-expressing cells. The peptides, referred to herein as JNK peptide inhibitors, decrease the downstream cell-proliferative effects of c-Jun amino terminal kinase (JNK). The JNK inhibitor peptides can be present as polymers of L-amino acids or D-amino acids. The invention includes a method of treating a pathophysiol. associated with activation of JNK in a cell or cells. The invention further provides a method of preventing or treating hearing loss in a subject. The method includes administering to the subject a cell-permeable bioactive peptide which prevents damage to the hair cell stereocilia, hair cell apoptosis, or neuronal apoptosis. He invention also contemplates a method of inhibiting pancreatic islet cell death, where the method includes contacting a pancreatic islet cell with a cell-permeable bioactive peptide such that pancreatic cell death is inhibited.</p> | | | |
| IT | <p>123251-89-8 448950-42-3 RL: PRP (Properties) (Unclaimed; cell-permeable peptide inhibitors of the JNK signal transduction pathway)</p> | | | |
| IT | <p>123251-89-8 RL: PRP (Properties) (Unclaimed; cell-permeable peptide inhibitors of the JNK signal transduction pathway)</p> | | | |
| RN | 123251-89-8 HCAPLUS | | | |
| CN | L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminy-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME) | | | |

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 18 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:435239 HCAPLUS
 DN 139:32886
 TI Identification of peptides that facilitate uptake and cytoplasmic and/or
 nuclear transport of proteins, DNA and viruses
 IN Robbins, Paul D.; Mi, Zhibao; Frizzell, Raymond; Glorioso, Joseph C.;
 Gambotto, Andrea
 PA USA
 SO U.S. Pat. Appl. Publ., 110 pp., Cont.-in-part of U.S. Ser. No. 653,182.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 3

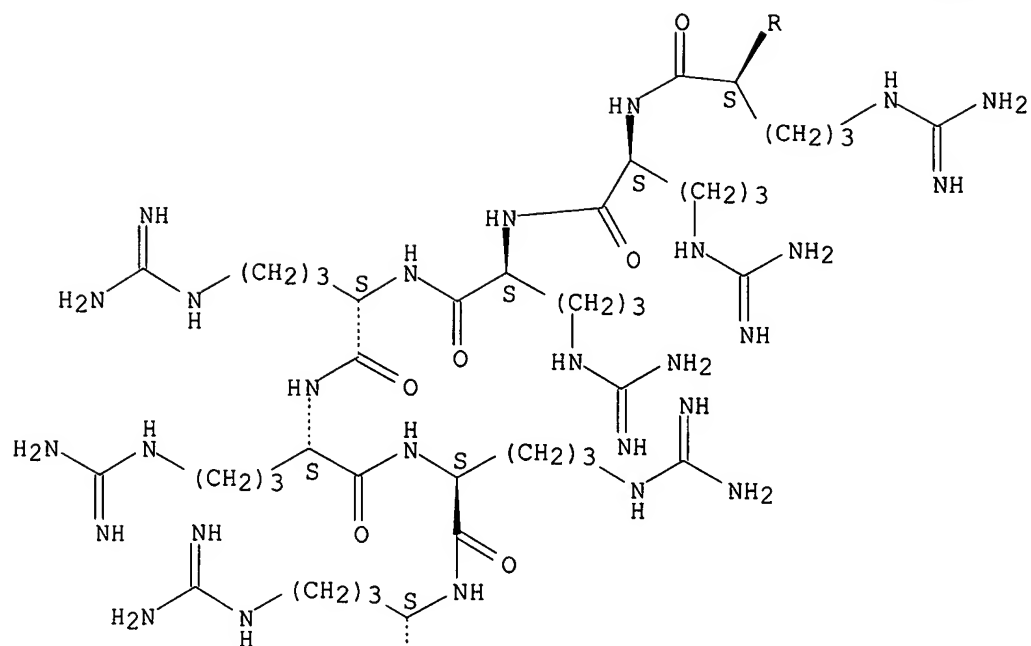
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|------|----------|-----------------|--------------|
| PI | US 2003104622 | A1 | 20030605 | US 2002-75869 | 20020213 <-- |
| | US 6881825 | B1 | 20050419 | US 2000-653182 | 20000831 <-- |

jan delaval - 7 september 2006

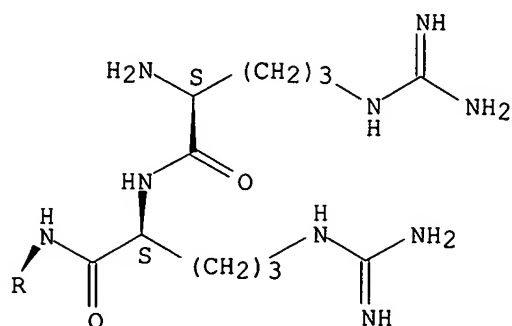
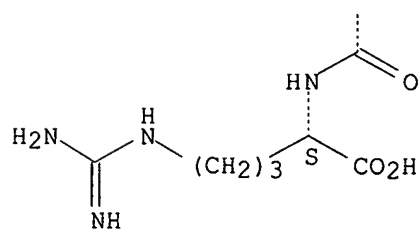
WO 2003068942 A2 20030821 WO 2003-US4632 20030212
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 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 AU 2003216289 A1 20030904 AU 2003-216289 20030212
 US 2003219826 A1 20031127 US 2003-366493 20030212 <--
 US 2005074884 A1 20050407 US 2004-926893 20040826 <--
 PRAI US 1999-151980P P 19990901 <--
 US 2000-188944P P 20000313 <--
 US 2000-653182 A2 20000831 <--
 US 2002-75869 A 20020213
 WO 2003-US4632 W 20030212
 AB The present invention relates to internalizing peptides which facilitate
 the uptake and transport of cargo into the cytoplasm and nuclei of cells
 as well as methods for the identification of such peptides. The
 internalizing peptides of the present invention are selected for their
 ability to efficiently internalize cargo into a wide variety of cell types
 both in vivo and in vitro. The method for identification of the
 internalizing peptides of the present invention comprises incubating a
 target cell with a peptide display library, isolating peptides with
 internalization characteristics and determining the ability of said peptide to
 internalize cargo into a cell. Various cells and cell lines were panned
 with a phage display library for internalizing peptides. Internalizing
 peptides PTD-5 and Airway peptide were prepared and coupled to
 β -galactosidase. PTD-5 achieved more efficient uptake of β -gal
 in comparison to Airway peptide in Calu3 cells, but the Airway peptide
 demonstrated greater specificity for Calu3 cells. PTD-5 indiscriminately
 facilitates uptake in multiple cell types in the murine lung, whereas
 Airway peptide facilitates uptake specifically into lung epithelia.
 NF- κ B-mediated apoptosis in islet cells was inhibited with a peptide
 containing PTD-5 and I κ B.
 IT **148796-87-6**
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (effect on β -galactosidase uptake; identification and use of
 peptides that facilitate uptake and cytoplasmic and/or nuclear
 transport of proteins, DNA and viruses)
 IT **148796-87-6**
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (effect on β -galactosidase uptake; identification and use of
 peptides that facilitate uptake and cytoplasmic and/or nuclear
 transport of proteins, DNA and viruses)
 RN 148796-87-6 HCAPLUS
 CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-
 arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 19 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:118585 HCAPLUS
 DN 138:158767

jan delaval - 7 september 2006

TI Intracellular delivery of biological effectors
 IN Bonny, Christophe
 PA Universite De Lausanne, Switz.
 SO U.S. Pat. Appl. Publ., 20 pp., Cont.-in-part of U. S. Ser. No. 977,831.
 CODEN: USXXCO

DT Patent
 LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| PI | US 2003032594 | A1 | 20030213 | US 2002-165015 | 20020607 <-- |
| | US 7033597 | B2 | 20060425 | | |
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| | US 6960648 | B2 | 20051101 | | |
| | CA 2488716 | AA | 20031218 | CA 2003-2488716 | 20030606 |
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| JP | 2006500917 | T2 | 20060112 | JP 2004-510837 | 20030606 |
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| PRAI | US 2000-240315P | P | 20001013 | <-- | |
| | US 2001-977831 | A2 | 20011015 | <-- | |
| | US 2002-165015 | A | 20020607 | | |
| | WO 2003-IB3097 | W | 20030606 | | |

OS MARPAT 138:158767

AB The invention relates to sequences of amino acids with the capacity to facilitate transport of an effector across a biol. membrane. More specifically, the present invention relates to novel peptide transporters that specifically target certain cell types for the intracellular delivery of drugs and therapeutic agents.

IT 412271-64-8

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (intracellular delivery of biol. effectors)

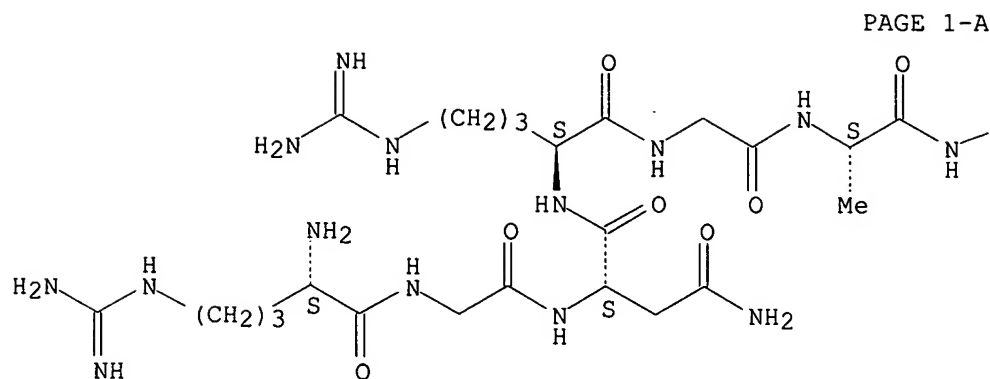
IT 412271-64-8

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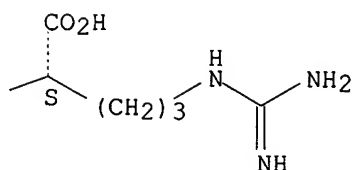
RN 412271-64-8 HCAPLUS

CN L-Arginine, L-arginylglycyl-L-asparaginyl-L-arginylglycyl-L-alanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-B



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| ===== | ===== | ===== | ===== | ===== | ===== |
| Ammendrup | 2000 | 49 | 1468 | Diabetes | HCAPLUS |
| Anderson | 1989 | 53 | S63 | Clin. Immun. and Imm | HCAPLUS |
| Anon | 1993 | | | CA 2094658 | HCAPLUS |
| Anon | 1994 | | | WO 9423751 | HCAPLUS |
| Anon | 1998 | | | WO 9851325 | HCAPLUS |
| Anon | 1998 | | | WO 9851825 | HCAPLUS |
| Anon | 1999 | | | FR 2767323 | HCAPLUS |
| Anon | 1999 | | | WO 9907414 | HCAPLUS |
| Anon | 2000 | | | WO 0012587 | HCAPLUS |
| Anon | 2001 | | | WO 0164738 | HCAPLUS |
| Anon | 2002 | | | WO 0231109 A2 | HCAPLUS |
| Anon | 2002 | | | International Search | |
| Anon | 2004 | | | International Search | |
| Avrameas | 1998 | 95 | 5601 | Proc. Natl. Acad. Sc | HCAPLUS |
| Bleich | 1999 | 103 | 1431 | J. Clin. Inves | HCAPLUS |
| Bonner-Weir | 1994 | 49 | 91 | Recent Prog. Hormone | HCAPLUS |
| Bonny | 2001 | 50 | 77 | Diabetes | HCAPLUS |
| Bonny | 1998 | 273 | 1843 | J. Biol. Che | HCAPLUS |
| Bonny | 2000 | 275 | 16466 | J. Biol. Che | HCAPLUS |
| Breeman | 1999 | 81 | 658 | Int. J. Cancer | HCAPLUS |
| Brugidou | 1995 | 214 | 685 | Biochem. Biophys. Re | HCAPLUS |
| Burns | 1998 | 273 | 12203 | J. Biol. Che | HCAPLUS |
| Cabibbo | 1995 | 167 | 41 | Gene | HCAPLUS |
| Carithers | 1996 | 3 | 537 | Chem. Biol. | |
| Chen | 2000 | 49 | 562 | Diabetes | HCAPLUS |
| Damke | 1996 | 389 | 48 | FEBS Letters | HCAPLUS |
| De Jong | 1999 | 40 | 2081 | J. Nucl. Med. | HCAPLUS |
| Dupraz | 1999 | 6 | 1160 | Gene Therapy | HCAPLUS |

| | | | | | |
|-----------------|------|------|-------|----------------------|---------|
| Efrat | 1988 | 85 | 9037 | Proc. Natl. Acad. Sc | HCAPLUS |
| Flodstrom | 1999 | 48 | 706 | Diabetes | HCAPLUS |
| Giannoukakis | 1999 | 48 | 1730 | Diabetes | HCAPLUS |
| Gibbs | 1994 | 79 | 193 | Cell | HCAPLUS |
| Gibbs | 2000 | 287 | 1969 | Science | HCAPLUS |
| Gotoh | 1987 | 43 | 725 | Transplantati | MEDLINE |
| Hawiger | 1999 | 3 | 89 | Current Opinion Chem | HCAPLUS |
| Hofland | 1999 | 111 | 63 | Proc. Assoc. Am. Phy | HCAPLUS |
| Hoorens | 1996 | 98 | 1568 | J. Clin. Inves | HCAPLUS |
| Ivanenkov | 1999 | 1448 | 450 | Biochem. Biophys. Ac | HCAPLUS |
| Ivanenkov | 1999 | 1448 | 463 | Biochem. Biophys. Ac | HCAPLUS |
| Iwahashi | 1998 | 4 | 45 | Cell Mol. Ther. | MEDLINE |
| Iwahashi | 1996 | 39 | 530 | Diabetologia | HCAPLUS |
| Kato | 1997 | 14 | 287 | Critical Rev Thera. | HCAPLUS |
| Kim | 2000 | 20 | 439 | Anticancer Res. | HCAPLUS |
| Larsen | 1998 | 273 | 15294 | J. Biol. Che | HCAPLUS |
| Lin | 1995 | 270 | 14255 | J. Biol. Che | HCAPLUS |
| Lund | 1990 | 265 | 15713 | J. Biol. Che | |
| Mahato | 1997 | 14 | 133 | Critical Rev. Thera | HCAPLUS |
| Mahato | 1997 | 4 | 337 | J. Drug Targeti | HCAPLUS |
| Mandrup-Poulsen | 1998 | 316 | 1221 | BMJ | MEDLINE |
| Mandrup-Poulsen | 1996 | 39 | 1005 | Diabetologia | HCAPLUS |
| Mukherjee | 1997 | 77 | 759 | Physiol. Rev | HCAPLUS |
| Negri | 2000 | 64 | 324 | Genomics | HCAPLUS |
| Nerup | 1988 | 11 | 16 | Diabetes Care | |
| Oehlke | 1998 | 1414 | 127 | Biochem. Biophys. Ac | HCAPLUS |
| Offord | 1997 | 287 | 348 | Meth. Enzymol. | HCAPLUS |
| Pasqualini | 1996 | 1 | 423 | Mol. Psychiatry | MEDLINE |
| Pasquallini | 1996 | 380 | 364 | Nature | |
| Peralta | 1990 | 127 | 595 | Endocrino | |
| Rabinovitch | 1999 | 48 | 1223 | Diabetes | HCAPLUS |
| Renschler | 1994 | 91 | 3623 | Proc. Natl. Acad. Sc | HCAPLUS |
| Roitt | 1991 | | 65 | Essential Immunology | |
| Rose | 1999 | 121 | 7034 | J. Am. Chem Soc. | HCAPLUS |
| Rothbard | 2000 | 6 | 1253 | Nature Med | HCAPLUS |
| Rouquet | 1996 | 6 | 1192 | Curr. Bio | HCAPLUS |
| Scharfmann | 1996 | 22 | 223 | Diabetes and Metabol | MEDLINE |
| Schwarze | 1999 | 285 | 1569 | Science | HCAPLUS |
| Scott | 1990 | 249 | 386 | Science | HCAPLUS |
| Sela | 1997 | 11 | 449 | FASEB J. | HCAPLUS |
| Sela | 1997 | 11 | 449 | FASEB J. | HCAPLUS |
| Sjoholm | 1998 | 5 | 461 | Cell Death Diff. | HCAPLUS |
| Smith | 1988 | 58 | 613 | Laboratory Inves | HCAPLUS |
| Smith | 1993 | 217 | 228 | Meth. Enzymol. | HCAPLUS |
| Stephens | 1999 | 140 | 3219 | Endocrino | HCAPLUS |
| Stephens | 1997 | 10 | 293 | J. Autoimmunity | MEDLINE |
| Suzuki | 2002 | 277 | 2437 | J. Biol Che | HCAPLUS |
| Terskikh | 1997 | 94 | 1663 | Proc. Natl. Acad. Sc | HCAPLUS |
| Thorens | 1992 | 89 | 8641 | Proc. Natl. Acad. Sc | HCAPLUS |
| Torgerson | 1998 | 161 | 6084 | J. Immunology | MEDLINE |
| Ulbrich | 2000 | 64 | 63 | J. Controlled Rel. | HCAPLUS |
| Usami | 1998 | 55 | 185 | Biochem Pharmacol | HCAPLUS |
| Volz | 1995 | 373 | 23 | FEBS Letters | HCAPLUS |
| Wang | 1999 | 140 | 1200 | Endocrino | HCAPLUS |
| Welsh | 1999 | 5 | 169 | Mol. Med. | HCAPLUS |
| Widmann | 1995 | 315 | 203 | Biochem J. | |
| Yamada | 1999 | 48 | 478 | Diabetes | HCAPLUS |
| Yamato | 1997 | 29 | 56 | Horm. Metab. Res. | HCAPLUS |
| Yoon | 1999 | 284 | 1183 | Science | HCAPLUS |
| York | 1999 | 274 | 1164 | J. Biol Che | HCAPLUS |

| | | | | |
|--------|---------|-----|----------------------|---------|
| Zacher | 1980 9 | 127 | Gene | HCAPLUS |
| Zeng | 1996 2 | 66 | J. Peptide Sci. | HCAPLUS |
| Zwick | 1998 9 | 427 | Curr. Opin. Biotech. | HCAPLUS |

L59 ANSWER 20 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:97803 HCAPLUS

DN 138:147741

TI Compositions and methods for regulating endogenous inhibitor of ATP synthase, including treatment for diabetes

IN Anderson, Christen Marie; Clevenger, William

PA Mitokor, USA

SO U.S. Pat. Appl. Publ., 79 pp., Cont.-in-part of U.S. Ser. No. 796,076.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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AB The present invention provides compns. and methods for altering mitochondrial ATP metabolism, including compns. having fusion proteins comprising IF1 polypeptide-derived sequences, as well as binding and functional assays exploiting IF1 interactions with ATP synthase. Also disclosed are methods for identifying an agent capable of reducing mitochondrial ATP hydrolysis and/or increasing mitochondrial ATP synthesis, including pharmaceutical compns. identified by such methods. The invention also provides methods for treating diabetes, and in particular, type 2 DM, using an agent identified according to the disclosed methods. An IF1 fusion protein containing a His tag sequence, a tat cell transport sequence, a mitochondrial targeting sequence and a peptide of rat IF1 was prepared and tested in INS-1 cells. The fusion protein induced glucose stimulated insulin secretion in a dose dependent manner.

IT 455876-60-5

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)

(cell transport sequence in IF1 fusion protein; compns. and methods for regulating endogenous inhibitor of ATP synthase, including treatment for diabetes)

IT 455876-60-5

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)

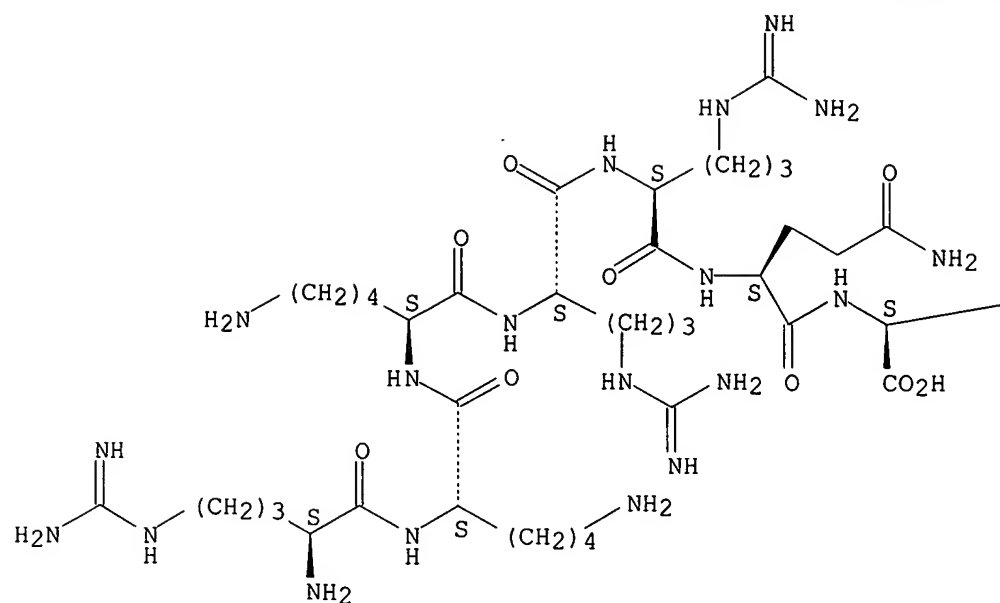
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RN 455876-60-5 HCAPLUS

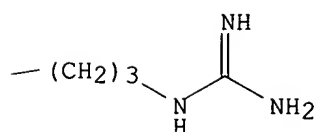
CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyll-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L59 ANSWER 21 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:905731 HCAPLUS
DN 138:14152
TI Preparation of enzymic ribonucleic acid peptide **conjugates** as
antitumor and antiviral agents and compositions for cellular delivery
IN Beigelman, Leonid; Matulic-Adamic, Jasenka; Vargeese, Chandra; Karpeisky,
Alexander; Blatt, Lawrence; Shaffer, Christopher
PA Ribozyme Pharmaceuticals, Inc, USA
SO PCT Int. Appl., 220 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 238

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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jan delaval - 7 september 2006

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US 2004110296   A1      20040610      US 2003-427160      20030430
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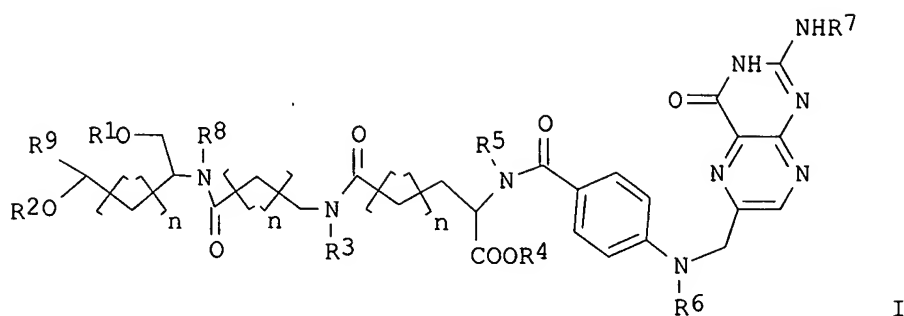

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| US 2005256068 | A1 | 20051117 | US 2004-923451 | 20040820 <-- |
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| US 2005288242 | A1 | 20051229 | US 2004-923476 | 20040820 <-- |
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| US 2005277133 | A1 | 20051215 | US 2005-63415 | 20050222 <-- |
| US 2005282188 | A1 | 20051222 | US 2005-98303 | 20050404 <-- |
| US 2006019917 | A1 | 20060126 | US 2005-140328 | 20050527 <-- |
| US 2006148743 | A1 | 20060706 | US 2005-217936 | 20050901 <-- |
| PRAI US 2001-292217P | P | 20010518 | <-- | |
| US 2001-306883P | P | 20010720 | <-- | |
| US 2001-311865P | P | 20010813 | <-- | |
| US 2002-362016P | P | 20020306 | | |
| AU 1995-26422 | A3 | 19950518 | <-- | |
| US 1996-623891 | A | 19960325 | <-- | |
| AU 1996-76662 | A3 | 19961025 | <-- | |
| US 2000-181797P | P | 20000211 | <-- | |
| US 2001-780533 | B2 | 20010209 | <-- | |
| WO 2001-US4273 | A2 | 20010209 | <-- | |
| US 2001-827395 | B2 | 20010405 | <-- | |
| US 2001-294140P | P | 20010529 | <-- | |
| US 2001-296249P | P | 20010606 | <-- | |
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| US 2001-930423' | B2 | 20010815 | <-- | |
| US 2001-318471P | P | 20010910 | <-- | |
| US 2001-334461P | P | 20011130 | <-- | |
| US 2002-358580P | P | 20020220 | | |
| US 2002-363124P | P | 20020311 | | |
| WO 2002-US9187 | A2 | 20020326 | | |

| | | |
|-----------------|----|----------|
| WO 2002-US10512 | A2 | 20020403 |
| US 2002-374722P | P | 20020422 |
| US 2002-151116 | A2 | 20020517 |
| WO 2002-US15876 | W | 20020520 |
| US 2002-157580 | A2 | 20020529 |
| WO 2002-US16840 | A2 | 20020529 |
| WO 2002-US17674 | A2 | 20020529 |
| US 2002-163552 | A2 | 20020606 |
| US 2002-386782P | P | 20020606 |
| US 2002-393796P | P | 20020703 |
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| US 2002-206705 | A2 | 20020726 |
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| US 2002-401093P | P | 20020805 |
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| US 2002-411275P | P | 20020917 |
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| US 2002-306747 | A2 | 20021127 |
| US 2002-429359P | P | 20021128 |
| US 2002-431105P | P | 20021205 |
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| WO 2003-US2510 | A2 | 20030128 |
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| WO 2003-US4908 | A2 | 20030218 |
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| WO 2004-US11848 | A2 | 20040416 |
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| WO 2004-US12517 | A2 | 20040423 |
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| US 2004-844072 | A2 | 20040512 |
| WO 2004-US16390 | A2 | 20040524 |
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| US 2004-944611 | A2 | 20040916 |
| US 2005-31668 | A1 | 20050106 |
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GI



AB This invention features peptide nucleotide **conjugates** I wherein each R1-R8 are independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, or a protecting group, each "n" is independently an integer from 0 to about 200, R9 is a straight or branched chain alkyl, substituted alkyl, aryl, or substituted aryl, and R2 is a phosphorus containing group, nucleoside, nucleotide, small mol., nucleic acid, or a solid support comprising a linker., degradable linkers, compns., methods of synthesis, and applications thereof, including folate, galactose, galactosamine, N-acetyl galactosamine, PEG, phospholipid, peptide and human serum albumin (HAS) derived **conjugates** of biol. active compds., including antibodies, antivirals, chemotherapeutics, peptides, proteins, hormones nucleosides, nucleotides, non-nucleosides, and nucleic acids including enzymic nucleic acids, DNazymes, allozymes, antisense, dsRNA, siRNA, triplex oligonucleotides, 2,5-A chimeras, decoys and aptamers. Thus, 1-O-(4-monomethoxytrityl)-N-(12'-hydroxydodecanoyl-2-acetamido-3,4,6-tri-O-acetyl-2-deoxy-3-D-galactopyranose)-D-threoninol 3-O-(2-cyanoethyl,N,N-diisopropylphosphoramidite) was prepared and incorporated into RNA. A method of treating a cancer patient, comprising contacting cells of patient wherein said cancer is breast cancer, lung cancer, colorectal cancer, brain cancer, esophageal cancer, stomach cancer, bladder cancer, pancreatic cancer, cervical cancer, head and neck cancer, ovarian cancer, melanoma, lymphoma, glioma, or multidrug resistant cancers and/or viral infections including HIV, HBV, HCV, CMV, RSV, HSV, poliovirus, influenza, rhinovirus, west nile virus, Ebola virus, foot and mouth virus, and papilloma.

IT 123251-89-8

RL: PRP (Properties)

(unclaimed sequence; preparation of enzymic RNA peptide **conjugates** as antitumor and antiviral agents and compns. for cellular delivery)

IT 123251-89-8

RL: PRP (Properties)

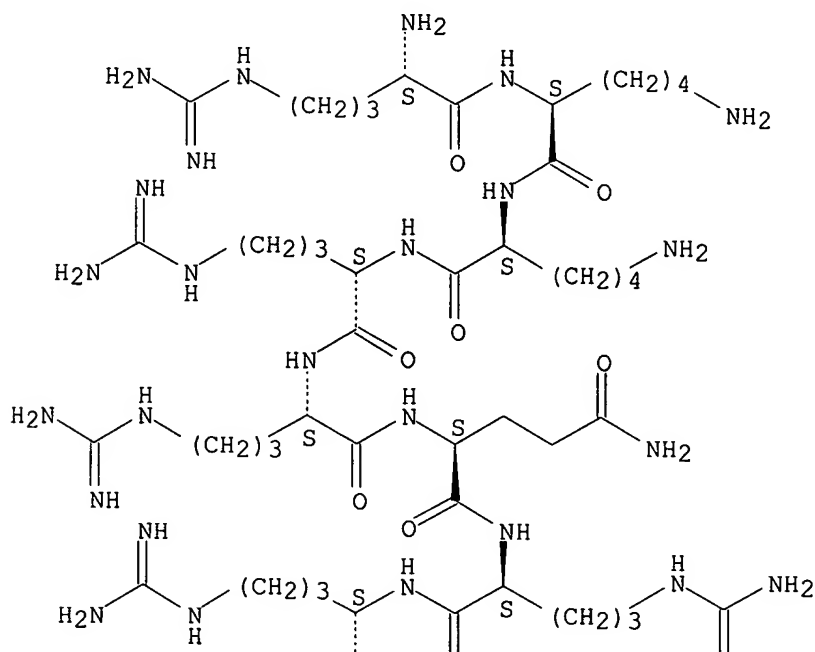
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RN 123251-89-8 HCAPLUS

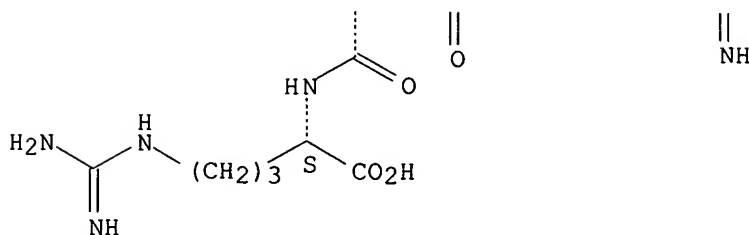
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Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 22 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:857449 HCAPLUS

DN 137:380978

TI Human nucleic acids and corresponding proteins useful in the detection and treatment of various cancers

IN Jakobovits, Aya; Challita-Eid, Pia M.; Faris, Mary; Ge, Wangmao; Hubert, Rene S.; Morrison, Karen; Morrison, Robert Kendall; Raitano, Arthur B.

PA Agensys, Inc., USA

SO PCT Int. Appl., 1021 pp.

CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 30

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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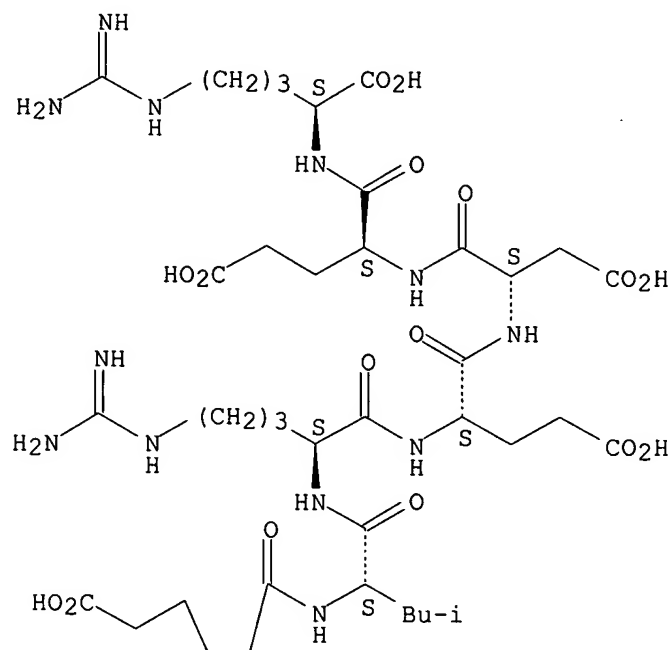
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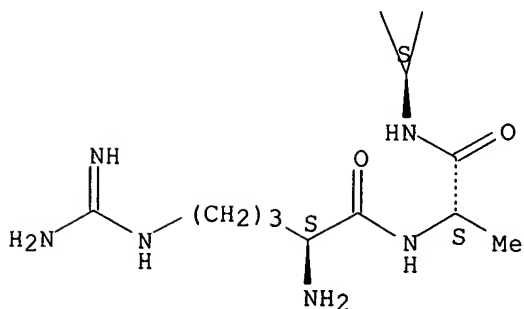
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Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 23 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:857447 HCAPLUS
 DN 137:380976

jan delaval - 7 september 2006

TI Human nucleic acids and corresponding proteins useful in the detection and treatment of various cancers
 IN Jakobovits, Aya; Challita-Eid, Pia M.; Faris, Mary; Ge, Wangmao; Hubert, Rene S.; Morrison, Karen; Morrison, Robert Kendall; Raitano, Arthur B.
 PA Agensys, Inc., USA
 SO PCT Int. Appl., 1021 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
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| IT | 473328-45-9 | | | | |

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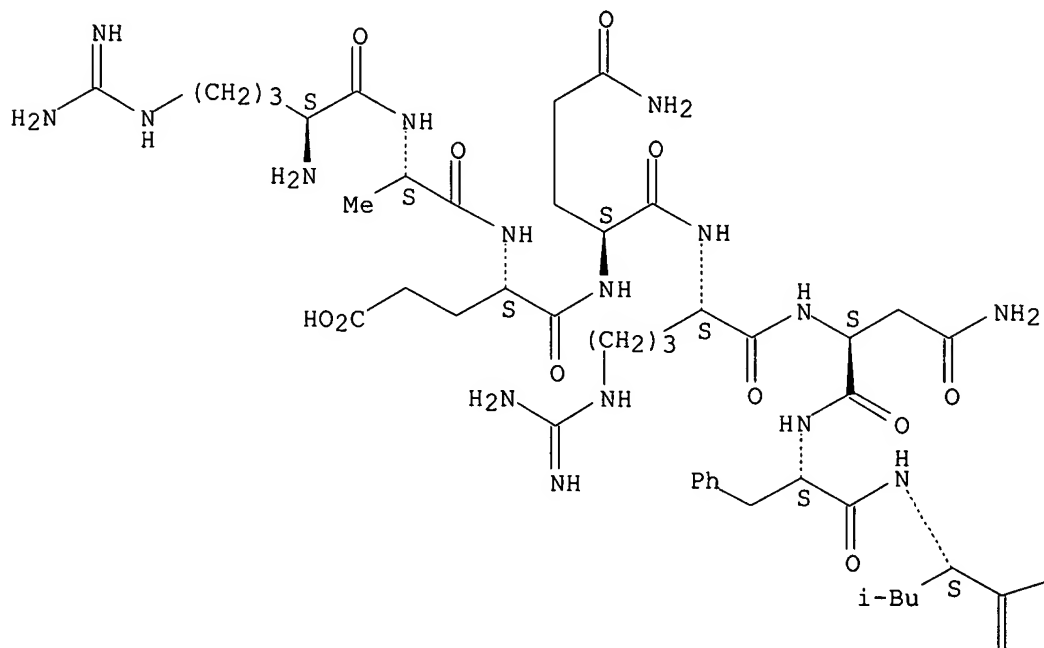
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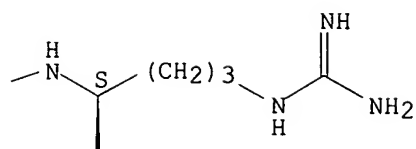
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Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PAGE 2-A



PAGE 2-B



L59 ANSWER 24 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
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 IN Jakobovits, Aya; Challita-Eid, Pia M.; Faris, Mary; Ge, Wangmao; Hubert, Rene S.; Morrison, Karen; Morrison, Robert Kendall; Raitano, Arthur B.
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jan delaval - 7 september 2006

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 WO 2002083921 A2 20021024 WO 2002-XN11654 20020410 <--
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 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
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 WO 2002083921 A2 20021024 WO 2002-XO11654 20020410 <--
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 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
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 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
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 US 2003109470 A1 20030612 US 2002-121019 20020410 <--
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 US 2005227253 A1 20051013 US 2004-990137 20041115 <--
 US 2006018917 A1 20060126 US 2004-989767 20041115 <--
 US 2005214211 A1 20050929 US 2005-73349 20050303 <--
 PRAI US 2001-282739P P 20010410 <--
 US 2001-283112P P 20010410 <--
 US 2001-286630P P 20010425 <--
 US 2000-227098P P 20000822 <--
 US 2001-300373P P 20010622 <--
 US 2001-935430 A1 20010822 <--
 US 2002-120835 A3 20020409
 WO 2002-US11654 W 20020410
 AB Eighteen genes and their resp. encoded proteins, and variants thereof, are
 described wherein the gene exhibits restricted expression in normal adult
 tissue and is overexpressed in various cancers. Suppression subtractive
 hybridization (SSH) is used to identify cDNAs corresponding to genes that

are differentially expressed in cancer; PCR amplification, cloning, and sequencing of gene fragments from SSH yield the full-length cDNAs. Consequently, the gene products provide diagnostic, prognostic, prophylactic, and/or therapeutic targets for cancer. The genes or fragment thereof, their encoded proteins, or variants or fragments thereof, can be used to elicit a humoral or cellular immune response; antibodies or T cells reactive with the gene products can be used in active or passive immunization. [This abstract record is one of 16 records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

IT 473327-31-0 473327-74-1 473328-45-9

RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(peptide epitope; human nucleic acids and corresponding proteins useful in the detection and treatment of various cancers)

IT 473327-31-0

RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

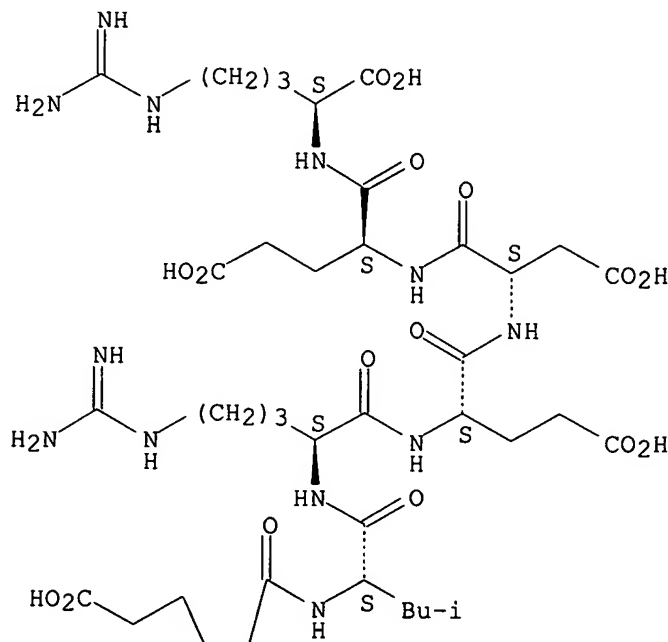
(peptide epitope; human nucleic acids and corresponding proteins useful in the detection and treatment of various cancers)

RN 473327-31-0 HCAPLUS

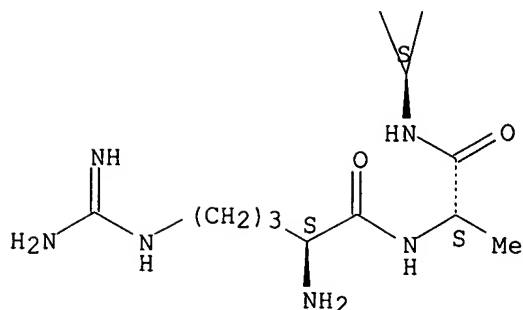
CN L-Arginine, L-arginyl-L-alanyl-L- α -glutamyl-L-leucyl-L-arginyl-L- α -glutamyl-L- α -aspartyl-L- α -glutamyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 25 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:676220 HCAPLUS

DN 137:210960

TI Compositions and methods for regulating endogenous inhibitor of ATP synthase, including a treatment for diabetes

IN Anderson, Christen M.; Clevenger, William

PA Mitokor, USA

SO PCT Int. Appl., 184 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 2002068680 | A2 | 20020906 | WO 2002-US6090 | 20020227 <-- |
| | WO 2002068680 | A3 | 20031016 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 2004072739 | A1 | 20040415 | US 2001-796076 | 20010227 <-- |
| PRAI | US 2001-796076 | A | 20010227 | <-- | |
| | US 1999-164622P | P | 19991110 | <-- | |
| | US 2000-709189 | B2 | 20001110 | <-- | |

AB The present invention provides compns. and methods for altering mitochondrial ATP metabolism, including compns. having fusion proteins comprising IF1 polypeptide-derived sequences, as well as binding and functional assays exploiting IF1 interactions with ATP synthase. Also disclosed are methods for identifying an agent capable of reducing mitochondrial ATP hydrolysis and/or increasing mitochondrial ATP synthesis, including pharmaceutical compns. identified by such methods. The invention also provides methods for treating diabetes, and in particular, type 2 DM, using an agent identified according to the disclosed methods.

IT 455876-60-5

RL: BSU (Biological study, unclassified); PRP (Properties); THU

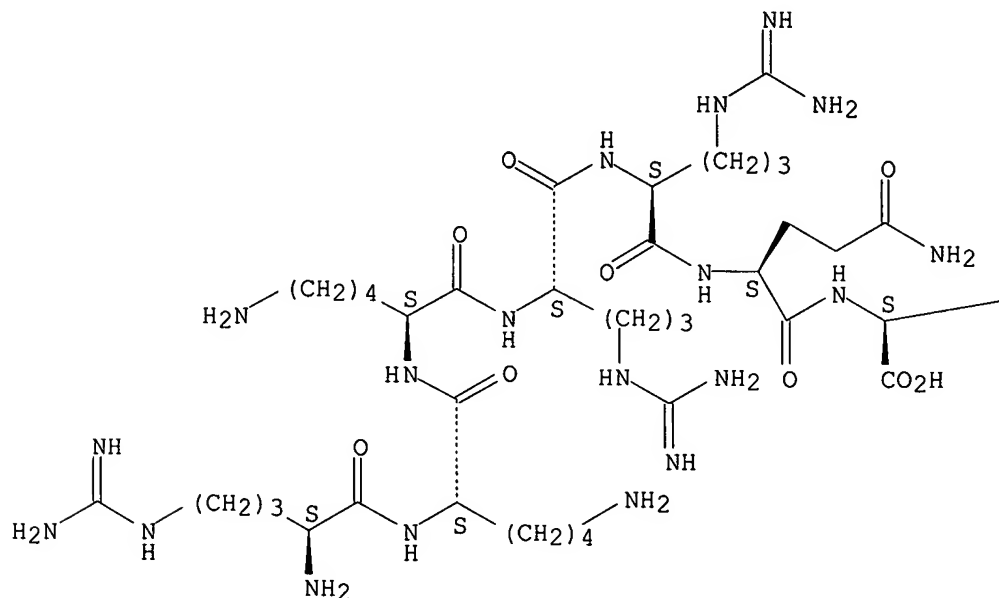
(Therapeutic use); BIOL (Biological study); USES (Uses)

(unclaimed sequence; compns. and methods for regulating endogenous

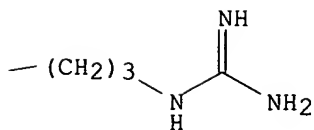
inhibitor of ATP synthase, including a treatment for diabetes)
 IT **455876-60-5**
 RL: BSU (Biological study, unclassified); PRP (Properties); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (unclaimed sequence; compns. and methods for regulating endogenous
 inhibitor of ATP synthase, including a treatment for diabetes)
 RN 455876-60-5 HCAPLUS
 CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L59 ANSWER 26 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:615447 HCAPLUS
 DN 137:190698

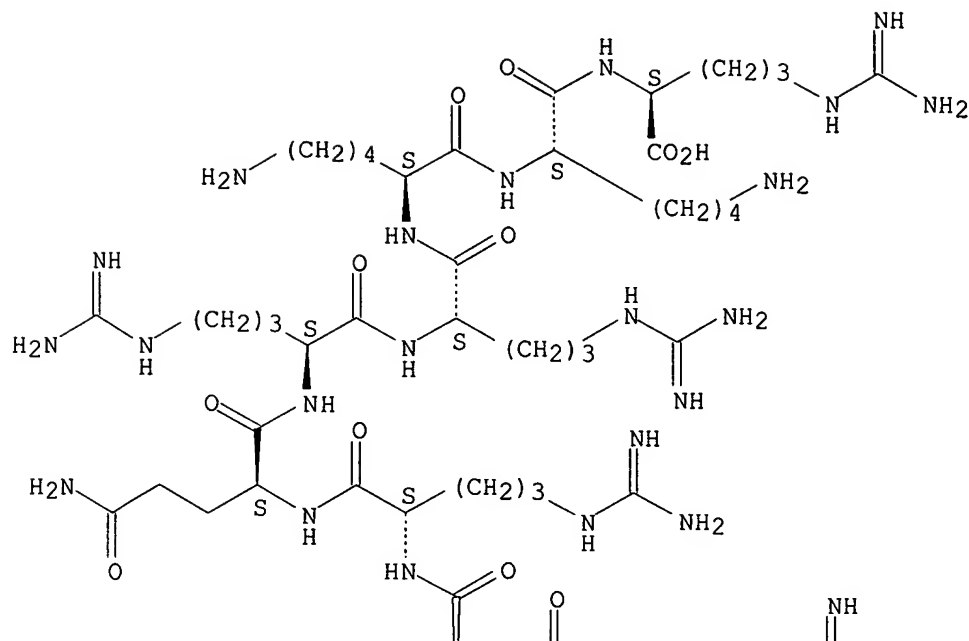
jan delaval - 7 september 2006

TI Enhanced oral and transcompartmental delivery of therapeutic or diagnostic agents
 IN Paranj, Pankaj; Stein, Stanley; Leibowitz, Michael J.; Sinko, Patrick J.; Minko, Tamara; Williams, Gregory C.; Zhang, Goubao; Pooyan, Shahrair; Park, Seong Hee; Qiu, Bo; Ramanathan, Srinivasan; Pooyan, Shahrair; et al.
 PA University of Medicine and Dentistry of New Jersey, USA; Rutgers, the State University of New Jersey
 SO PCT Int. Appl., 142 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

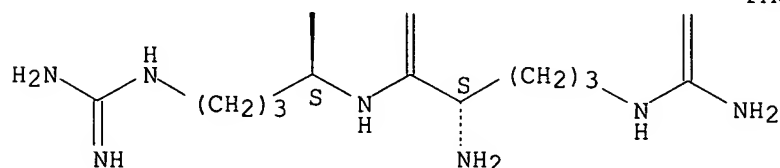
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|--|----------|-----------------|--------------|
| PI | WO 2002062396 | A2 | 20020815 | WO 2002-US3819 | 20020208 <-- |
| | WO 2002062396 | A3 | 20040318 | | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | |
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| | AU 2002240312 | A1 | 20020819 | AU 2002-240312 | 20020208 <-- |
| | US 2003091640 | A1 | 20030515 | US 2002-72657 | 20020208 <-- |
| | US 2006029667 | A1 | 20060209 | US 2005-170652 | 20050629 <-- |
| PRAI | US 2001-267396P | P | 20010208 | <-- | |
| | US 2002-72657 | B1 | 20020208 | | |
| | WO 2002-US3819 | W | 20020208 | | |
| OS | MARPAT 137:190698 | | | | |
| AB | The invention is directed to pharmaceutical compns. and methods for delivery of a therapeutic or diagnostic agent from one body compartment to one or more other body compartment by administering one of the following conjugates : a polymer having multiple functional groups at least one of which is covalently bound to a therapeutic or diagnostic agent, and at least one cell uptake promoter covalently bound to the therapeutic or diagnostic agent; or a polymer and at least one cell uptake promoter bound thereto; the polymer further comprising multiple functional groups at least one of which is covalently bound a therapeutic or diagnostic agent. | | | | |
| IT | 448950-42-3 | | | | |
| | RL: PRP (Properties) (unclaimed sequence; enhanced oral and transcompartmental delivery of therapeutic or diagnostic agents) | | | | |
| IT | 448950-42-3 | | | | |
| | RL: PRP (Properties) (unclaimed sequence; enhanced oral and transcompartmental delivery of therapeutic or diagnostic agents) | | | | |
| RN | 448950-42-3 HCAPLUS | | | | |
| CN | L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-glutaminy-L-arginyl-L-arginyl-L-lysyl-L-lysyl- (9CI) (CA INDEX NAME) | | | | |

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 27 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:595029 HCAPLUS

DN 137:174885

TI Targeting delivery of apoptosis-regulating proteins affecting the permeability transition pore complex using fusion proteins with cell-specific antibodies

IN Edelman, Lena; Jacotot, Etienne; Briand, Jean-Paul

PA Institut Pasteur, Fr.; Centre National De La Recherche

SO PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|------|----------|-----------------|--------------|
| PI | WO 2002061105 | A2 | 20020808 | WO 2002-EP1633 | 20020201 <-- |
| | WO 2002061105 | C2 | 20021031 | | |
| | WO 2002061105 | A3 | 20031106 | | |
| | WO 2002061105 | C1 | 20040521 | | |

jan delaval - 7 september 2006

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003077826 A1 20030424 US 2002-59261 20020131 <--
 CA 2436281 AA 20020808 CA 2002-2436281 20020201 <--
 EP 1379672 A2 20040114 EP 2002-722084 20020201 <--

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JP 2004532005 T2 20041021 JP 2002-561659 20020201 <--
 US 2004265300 A1 20041230 US 2003-627649 20030728 <--

PRAI US 2001-265594P P 20010202 <--
 WO 2002-EP1633 W 20020201

AB Fusion proteins of an apoptosis-regulating protein and a cell surface protein-specific antibody are used to target the apoptosis regulating protein to a specific cell type. The apoptosis regulating protein is preferably the Vpr peptide of HIV-1 or a fragment containing the amino acid motif H(F/S)RIG that interacts with mitochondrial inner membrane, adenine nucleotide translocation (ANT) protein of a cell. Binding of the fusion protein to the cell is followed by uptake of the protein and induction or inhibition of apoptosis of the cell. A vector encoding a fusion protein and a host cell carrying the vector are provided. The fusion proteins are useful for the targeted killing of cells such as cancer cells. The preparation of peptides inducing mitochondrial swelling (apoptosis-inducing) or inhibiting atractyloside-induced swelling (apoptosis-inhibiting) is demonstrated.

IT **123251-89-8D**, fusion products, **conjugates**, retroverso analogs
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (as apoptosis inhibitor; targeting delivery of apoptosis-regulating proteins affecting permeability transition pore complex using fusion proteins with cell-specific antibodies)

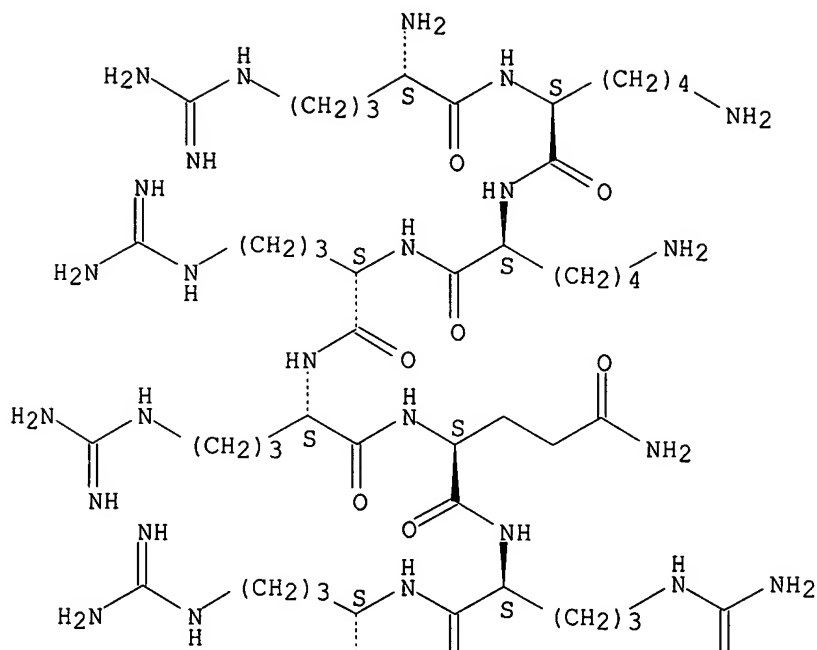
IT **123251-89-8**
 RL: PRP (Properties)
 (unclaimed sequence; targeting delivery of apoptosis-regulating proteins affecting the permeability transition pore complex using fusion proteins with cell-specific antibodies)

IT **123251-89-8D**, fusion products, **conjugates**, retroverso analogs
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (as apoptosis inhibitor; targeting delivery of apoptosis-regulating proteins affecting permeability transition pore complex using fusion proteins with cell-specific antibodies)

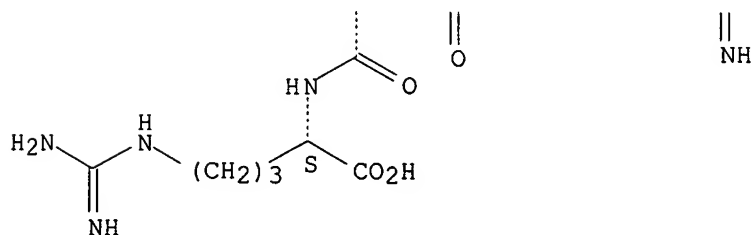
RN 123251-89-8 HCAPLUS
 CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminy-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 28 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:521462 HCAPLUS
 DN 137:88442
 TI Incensole and furanogermacrene and compounds in treatment for inhibiting
 neoplastic lesions and microorganisms
 IN Shanahan-Pendergast, Elisabeth
 PA Ire.
 SO PCT Int. Appl., 68 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

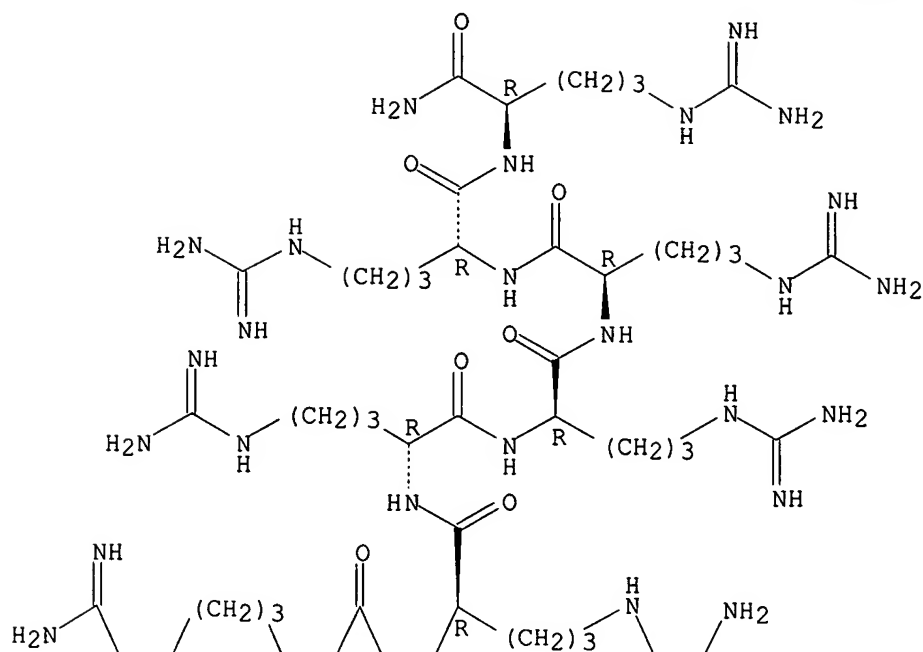
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---------------|------|----------|-----------------|--------------|
| PI | WO 2002053138 | A2 | 20020711 | WO 2002-IE1 | 20020102 <-- |
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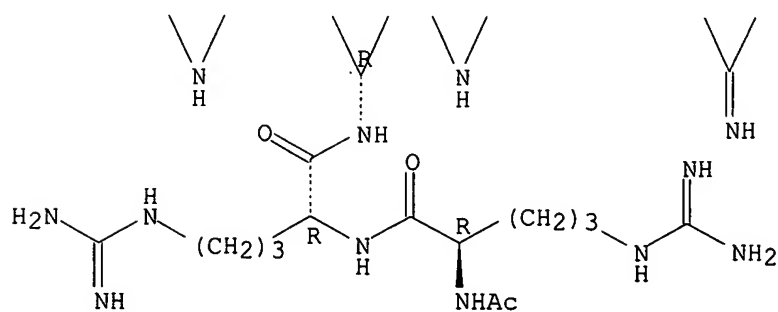
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 EP 1351678 A2 20031015 EP 2002-727007 20020102 <--
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 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 US 2004092583 A1 20040513 US 2004-250535 20040102 <--
 PRAI IE 2001-2 A 20010102 <--
 WO 2002-IE1 W 20020102
 OS MARPAT 137:88442
 AB The invention discloses the use of incensole and/or furanogermacrene,
 derivs. metabolites and precursors thereof in the treatment of neoplasia,
 particularly resistant neoplasia and immunodysregulatory disorders. These
 compds. can be administered alone or in combination with conventional
 chemotherapeutic, antiviral, antiparasite agents, radiation and/or
 surgery. Incensole and furanogermacrene and their mixture showed antitumor
 activity against various human carcinomas and melanomas and antimicrobial
 activity against Staphylococcus aureus and Enterococcus faecalis.
 IT 153127-49-2, ALX40-4C
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (pharmaceutical formulation further containing; incensole and
 furanogermacrene and compds. as antitumor and antimicrobial agents)
 IT 153127-49-2, ALX40-4C
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (pharmaceutical formulation further containing; incensole and
 furanogermacrene and compds. as antitumor and antimicrobial agents)
 RN 153127-49-2 HCAPLUS
 CN D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-
 arginyl-D-arginyl-D-arginyl-D-arginyl-, nonaacetate (9CI) (CA INDEX NAME)
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 CMF C56 H113 N37 O10

Absolute stereochemistry.

PAGE 1-A

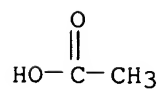


PAGE 2-A



CM 2

CRN 64-19-7
CMF C2 H4 O2



L59 ANSWER 29 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:293810 HCAPLUS

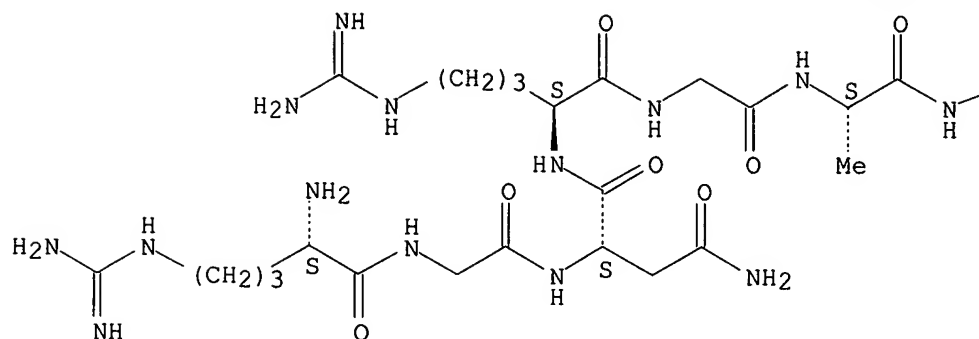
jan delaval - 7 september 2006

DN 136:330522
 TI Intracellular delivery of biological effectors
 IN Bonny, Christophe
 PA University of Lausanne, Switz.
 SO PCT Int. Appl., 50 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

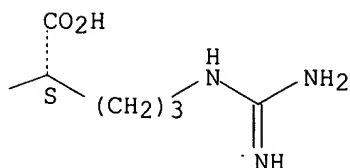
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|--|----------|-----------------|--------------|
| PI | WO 2002031109 | A2 | 20020418 | WO 2001-IB2423 | 20011015 <-- |
| | WO 2002031109 | A3 | 20030116 | | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
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| | AU 2002020979 | A5 | 20020422 | AU 2002-20979 | 20011015 <-- |
| | EP 1345956 | A2 | 20030924 | EP 2001-986713 | 20011015 <-- |
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| | US 2004110690 | A1 | 20040610 | US 2003-399127 | 20031204 <-- |
| | US 7034109 | B2 | 20060425 | | |
| PRAI | US 2000-240315P | P | 20001013 | <-- | |
| | WO 2001-IB2423 | W | 20011015 | <-- | |
| AB | The invention relates to a sequence of amino acids with the capacity to facilitate transport of an effector across a biol. membrane. More specifically, the present invention relates to novel peptide transporters that specifically target certain cell types for the intracellular delivery of drugs and therapeutic agents. | | | | |
| IT | 412271-64-8 RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (intracellular delivery of biol. effectors with peptide transporters) | | | | |
| IT | 412271-64-8 RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (intracellular delivery of biol. effectors with peptide transporters) | | | | |
| RN | 412271-64-8 HCAPLUS | | | | |
| CN | L-Arginine, L-arginylglycyl-L-asparaginyll-L-arginylglycyl-L-alanyl- (9CI) (CA INDEX NAME) | | | | |

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L59 ANSWER 30 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:185291 HCAPLUS
 DN 136:242900
 TI Site-specific DNA recombination with cell-permeable Cre recombinase fusion
 proteins containing a membrane translocation sequence or nuclear
 localization signal
 IN Ruley, H. Earl; Jo, Daewoong
 PA Vanderbilt University, USA
 SO PCT Int. Appl., 70 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|--|----------|-----------------|--------------|
| PI | WO 2002020737 | A2 | 20020314 | WO 2001-US28209 | 20010907 <-- |
| | WO 2002020737 | A3 | 20020829 | | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| | AU 2001088955 | A5 | 20020322 | AU 2001-88955 | 20010907 <-- |
| | US 2003027335 | A1 | 20030206 | US 2001-948193 | 20010907 <-- |
| PRAI | US 2000-230690P | P | 20000907 | <-- | |
| | WO 2001-US28209 | W | 20010907 | <-- | |
| AB | The present invention provides site-specific DNA recombinase fusion | | | | |

proteins containing a membrane translocation sequence, cDNAs, and uses in effecting site-specific DNA recombination in cells and in animals. Also provided are methods of determining the efficiency of protein transduction into cells; methods of detecting whether site-specific DNA recombination has occurred within a cell; methods of identifying compds. that modulate nuclear metabolism or protein trafficking, uptake, and/or excretion; and methods of identifying peptides that act as membrane translocation signals or that act as nuclear localization signals or other types of protein targeting signals. In the present study, recombinant fusion proteins bearing the 12 amino acid membrane translocation sequence (MTS) from the Kaposi fibroblast growth factor (FGF-4) were used to transduce enzymically active Cre proteins directly into mammalian cells. High levels of recombination were observed in a variety of cultured cell types and in all tissues examined in mice following i.p. administration. This represents the first use of protein transduction to induce the enzymic conversion of a substrate in living cells and animals and provides a rapid and efficient means to manipulate mammalian gene structure and function.

IT 136268-89-8

RL: PRP (Properties)

(unclaimed sequence; site-specific DNA recombination with cell-permeable Cre recombinase fusion proteins containing a membrane translocation sequence or nuclear localization signal)

IT 136268-89-8

RL: PRP (Properties)

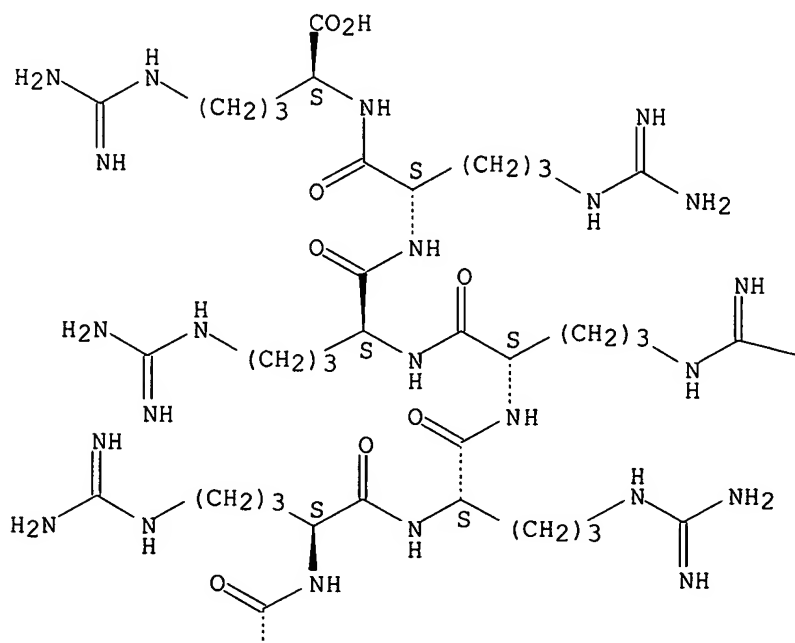
(unclaimed sequence; site-specific DNA recombination with cell-permeable Cre recombinase fusion proteins containing a membrane translocation sequence or nuclear localization signal)

RN 136268-89-8 HCAPLUS

CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

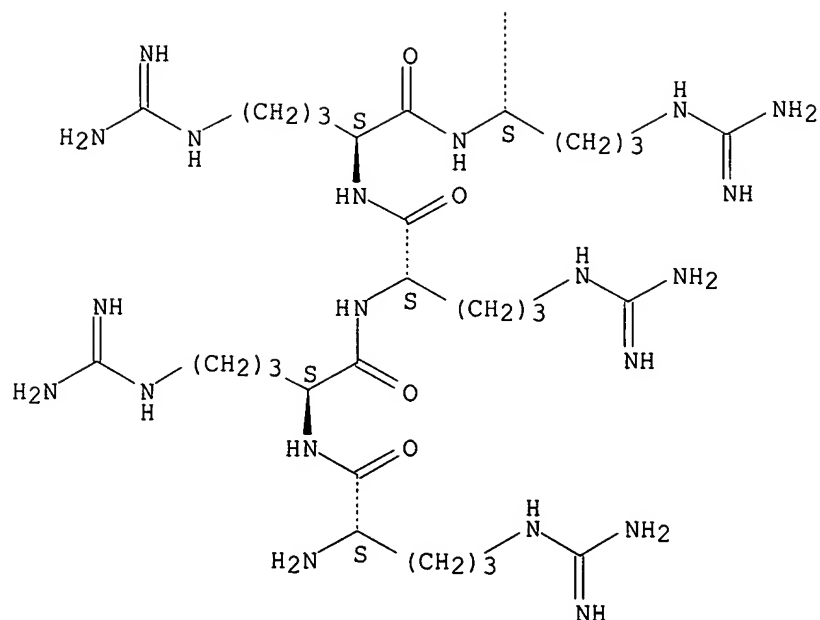
PAGE 1-A



PAGE 1-B

—NH₂

PAGE 2-A



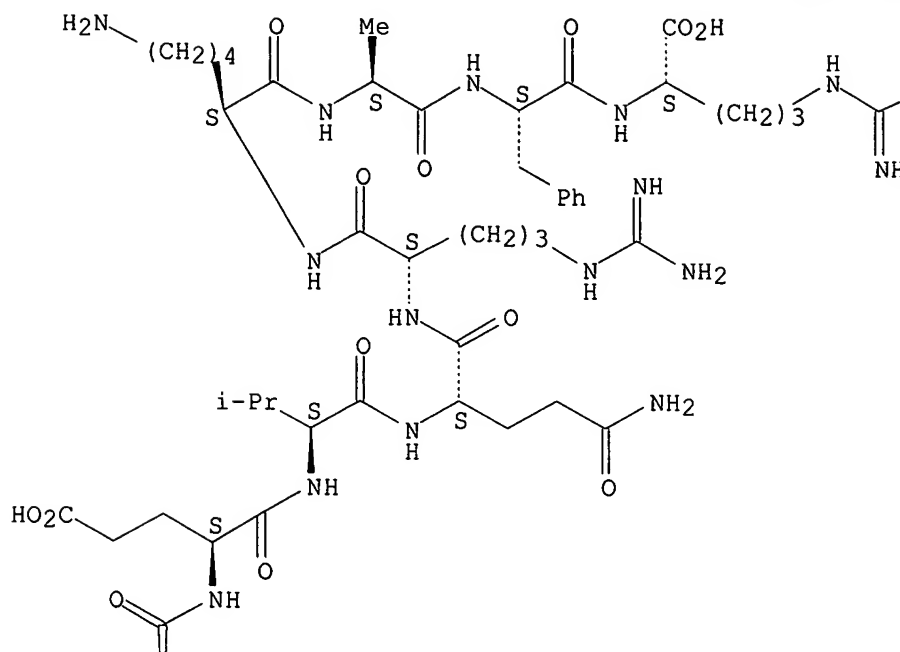
L59 ANSWER 31 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:142874 HCAPLUS
 DN 136:195329
 TI Nucleic acid and corresponding protein sequences of human PHOR1-A11 and
 PHOR1-F5D6 useful in treatment and detection of cancer
 IN Hubert, Rene S.; Raitano, Arthur B.; Faris, Mary; Challita-Eid, Pia M.;
 Ge, Wangmao; Jakobovits, Aya
 PA Agensys, Inc., USA
 SO PCT Int. Appl., 250 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

jan delaval - 7 september 2006

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 2002014501 | A2 | 20020221 | WO 2001-US25862 | 20010817 <-- |
| | WO 2002014501 | A3 | 20030130 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2001086541 | A5 | 20020225 | AU 2001-86541 | 20010817 <-- |
| PRAI | US 2000-226241P | P | 20000817 | <-- | |
| | WO 2001-US25862 | W | 20010817 | <-- | |
| AB | <p>The present invention relates to novel genes, designated PHOR1-A11 and PHOR1-F5D6, that are over-expressed in prostate, ovarian, bladder, and kidney cancers. A degenerate oligo PCR strategy was utilized to identify these two family members of the G-protein coupled receptors. Northern blot anal. of PHOR1-A11 and PHOR1-F5D6 gene expression in normal tissues shows a restricted expression pattern in adult tissues. The nucleotide and amino acid sequences of PHOR1-A11 and PHOR1-F5D6 are provided. PHOR1-A11 has the highest homol. to a Marmota olfactory receptor with 83% identity and 92% similarity over the entire Marmota 237 amino acid sequence; PHOR1-F5D6 has 100% amino acid homol. to an olfactory receptor protein predicted from PAC clone RP5-988G15. PHOR1-A11 is localized to human chromosome 1q43, suggesting that it is a candidate gene for hereditary prostate cancer, whereas PHOR1-F5D6 is localized to 7q33-q35, a region frequently amplified or rearranged in cancer. The tissue-related profile of PHOR1-A11 and PHOR1-F5D6 in normal adult tissues, combined with the over-expression observed in prostate and other tumors, shows that PHOR1-A11 and PHOR1-F5D6 is aberrantly over-expressed in at least some cancers, and thus serves as a useful diagnostic and/or therapeutic target for cancers of tissues such as prostate. The PHOR1-A11 or PHOR1-F5D6 gene or fragment thereof, or its encoded protein or a fragment thereof, can be used to elicit an immune response.</p> | | | | |
| IT | <p>398467-75-9 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (immunogenic peptide; nucleic acid and corresponding protein sequences of human PHOR1-A11 and PHOR1-F5D6 useful in treatment and detection of cancer)</p> | | | | |
| IT | <p>398467-75-9 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (immunogenic peptide; nucleic acid and corresponding protein sequences of human PHOR1-A11 and PHOR1-F5D6 useful in treatment and detection of cancer)</p> | | | | |
| RN | 398467-75-9 HCAPLUS | | | | |
| CN | L-Arginine, L-arginyl-L- α -glutamyl-L-valyl-L-glutaminyl-L-arginyl-L-lysyl-L-alanyl-L-phenylalanyl- (9CI) (CA INDEX NAME) | | | | |

Absolute stereochemistry.

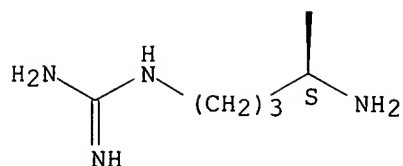
PAGE 1-A



PAGE 1-B

—NH₂

PAGE 2-A



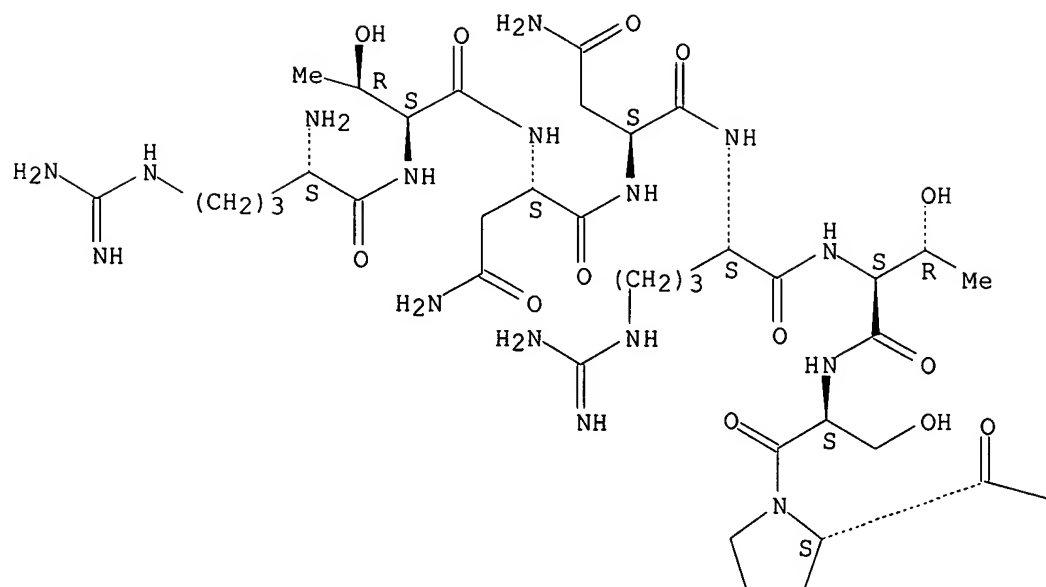
L59 ANSWER 32 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:142749 HCAPLUS
 DN 136:195323
 TI Nucleic acid and corresponding protein sequences of human 83P2H3 and
 CaTrF2E11 useful in treatment and detection of cancer
 IN Raitano, Arthur B.; Challita-Eid, Pia M.; Faris, Mary; Saffran, Douglas
 C.; Afar, Daniel E. H.; Levin, Elana; Hubert, Rene S.; Ge, Wangmao;
 Jakobovits, Aya
 PA Agensys, Inc., USA
 SO PCT Int. Appl., 270 pp.
 CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1

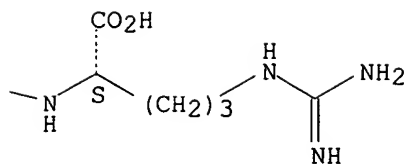
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 2002014361 | A2 | 20020221 | WO 2001-US25782 | 20010817 <-- |
| | WO 2002014361 | A3 | 20030925 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2001085018 | A5 | 20020225 | AU 2001-85018 | 20010817 <-- |
| | US 2003134784 | A1 | 20030717 | US 2001-932165 | 20010817 <-- |
| PRAI | US 2000-226329P | P | 20000817 | <-- | |
| | WO 2001-US25782 | W | 20010817 | <-- | |
| AB | The present invention relates to novel genes, designated 83P2H3 and CaTrF2E11, that are over-expressed in prostate, ovarian, bladder, kidney, and lung cancers. A degenerate oligo PCR strategy was utilized to identify these two family members of the calcium transporters. Northern blot anal. of 83P2H3 and CaTrF2E11 gene expression in normal tissues shows a restricted expression pattern in adult tissues. The nucleotide and amino acid sequences of 83P2H3 and CaTrF2E11 are provided. 83P2H3 is localized to human chromosome 7q34, whereas CaTrF2E11 is localized to 12q24.1. The tissue-related profile of 83P2H3 and CaTrF2E11 in normal adult tissues, combined with the over-expression observed in prostate and other tumors, shows that 83P2H3 and CaTrF2E11 is aberrantly over-expressed in at least some cancers, and thus serves as a useful diagnostic and/or therapeutic target for cancers of tissues such as prostate. The 83P2H3 or CaTrF2E11 gene or fragment thereof, or its encoded protein or a fragment thereof, can be used to elicit an immune response. | | | | |
| IT | 399540-45-5 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (immunogenic peptide; nucleic acid and corresponding protein sequences of human 83P2H3 and CaTrF2E11 useful in treatment and detection of cancer) | | | | |
| IT | 399540-45-5 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (immunogenic peptide; nucleic acid and corresponding protein sequences of human 83P2H3 and CaTrF2E11 useful in treatment and detection of cancer) | | | | |
| RN | 399540-45-5 HCAPLUS | | | | |
| CN | L-Arginine, L-arginyl-L-threonyl-L-asparaginyL-L-asparaginyL-L-arginyl-L-threonyl-L-seryl-L-prolyl- (9CI) (CA INDEX NAME) | | | | |

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L59 ANSWER 33 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:107056 HCAPLUS
 DN 136:166049
 TI Molecular vaccine linking intercellular spreading protein to an antigen
 IN Wu, Tzyy-Chou; Hung, Chien-Fu
 PA The Johns Hopkins University, USA
 SO PCT Int. Appl., 102 pp.

jan delaval - 7 september 2006

CODEN: PIXXD2

DT Patent
 LA English
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 2002009645 | A2 | 20020207 | WO 2001-US23966 | 20010801 <-- |
| | WO 2002009645 | A3 | 20021017 | | |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, | | | | |
| | CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, | | | | |
| | GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, | | | | |
| | LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, | | | | |
| | RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, | | | | |
| | UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | | | | |
| | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, | | | | |
| | DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, | | | | |
| | BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2001090520 | A5 | 20020213 | AU 2001-90520 | 20010801 <-- |
| | US 2004028693 | A1 | 20040212 | US 2003-343719 | 20030808 <-- |
| PRAI | US 2000-222185P | P | 20000801 | <-- | |
| | US 2001-268575P | P | 20010215 | <-- | |
| | US 2001-281004P | P | 20010404 | <-- | |
| | WO 2001-US23966 | W | 20010801 | <-- | |

AB Superior mol. vaccines comprise nucleic acids, including naked DNA and replicon RNA, that encode a fusion polypeptide that includes an antigenic peptide or polypeptide against which an immune response is desired. Fused to the antigenic peptide is an intercellular spreading protein, in particular a herpes virus protein VP22 or a homolog or functional derivative thereof. Preferred spreading proteins are VP22 from HSV-1 and Marek's disease virus. The nucleic acid can encode any antigenic epitope of interest, preferably an epitope that is processed and presented by MHC class I proteins. Antigens of pathogenic organisms and cells such as tumor cells are preferred. Vaccines comprising HPV-16 E7 oncoprotein are exemplified. Also disclosed are methods of using the vaccines to induce heightened T cell mediated immunity, in particular by cytotoxic T lymphocytes, leading to protection from or treatment of a tumor.

IT 397274-55-4

RL: PRP (Properties)
 (unclaimed sequence; mol. vaccine linking intercellular spreading protein to an antigen)

IT 397274-55-4

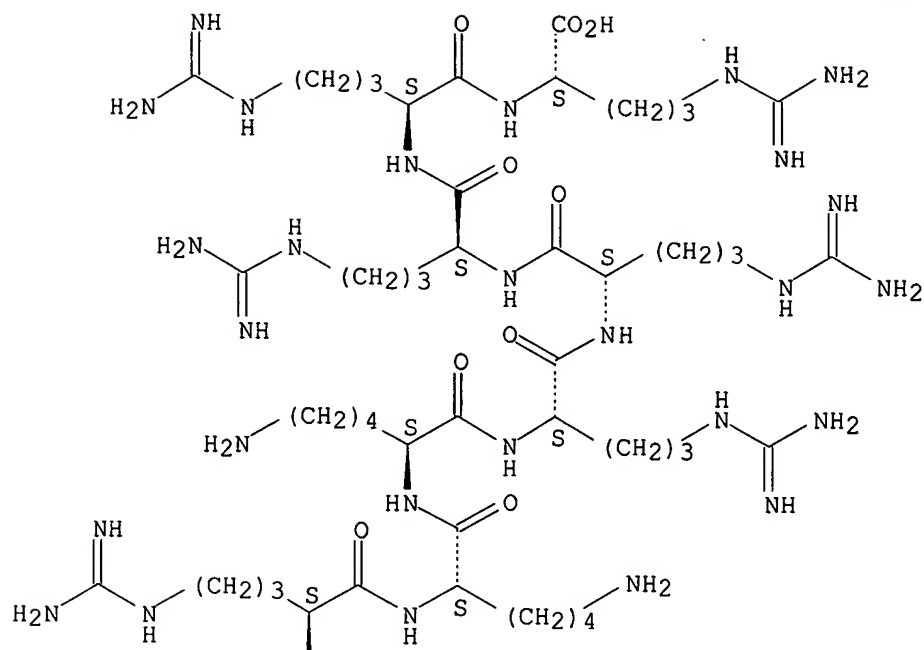
RL: PRP (Properties)
 (unclaimed sequence; mol. vaccine linking intercellular spreading protein to an antigen)

RN 397274-55-4 HCAPLUS

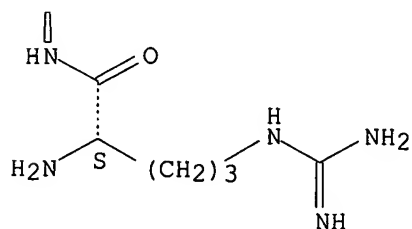
CN L-Arginine, L-arginyl-L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 34 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:72152 HCAPLUS
 DN 136:133605
 TI Vaccine comprising a lung tumor associated antigen
 IN Cassart, Jean-pol; Gaulis, Swann; Vinals y De Bassols, Carlota
 PA Smithkline Beecham Biologicals SA, Belg.
 SO PCT Int. Appl., 92 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| WO 2002006338 | A1 | 20020124 | WO 2001-EP7967 | 20010711 <-- |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, | | | | |

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
 RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
 UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI GB 2000-17512 A 20000717 <--

AB CASB761 polypeptides and polynucleotides and methods for producing such polypeptides by recombinant techniques are disclosed. Also disclosed are methods for utilizing CASB761 polypeptides and polynucleotides in diagnostics, and vaccines for prophylactic and therapeutic treatment of cancers, particularly lung cancer, lung preneoplastic lesions, autoimmune diseases, and related conditions.

IT 392654-62-5

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (vaccine comprising lung tumor-associated antigen CASB761 protein)

IT 392654-62-5

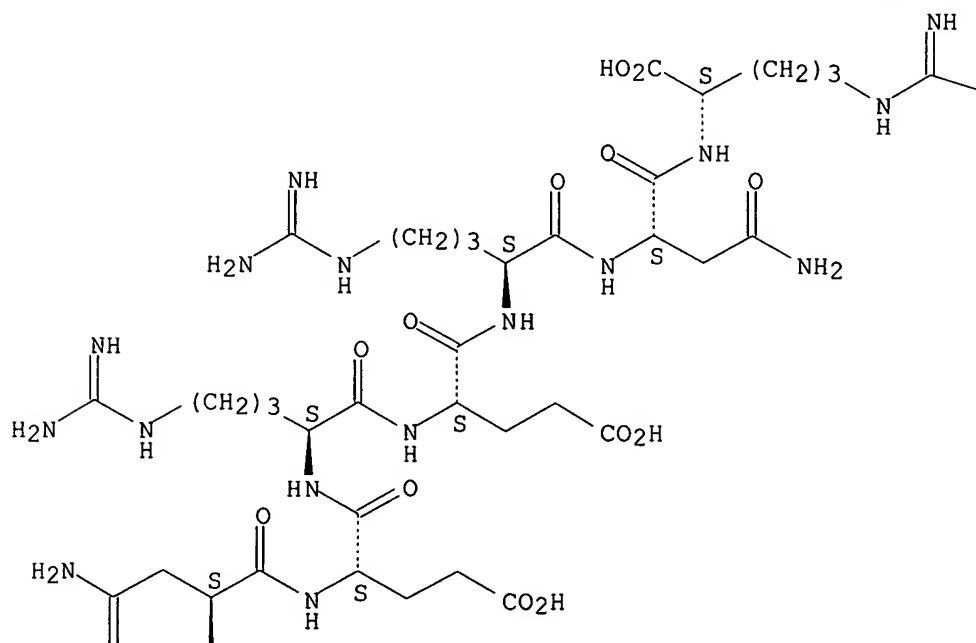
RL: BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (vaccine comprising lung tumor-associated antigen CASB761 protein)

RN 392654-62-5 HCAPLUS

CN L-Arginine, L-arginyl-L-arginyl-L-asparaginyl-L- α -glutamyl-L-arginyl-L- α -glutamyl-L-arginyl-L-asparaginyl- (9CI) (CA INDEX NAME)

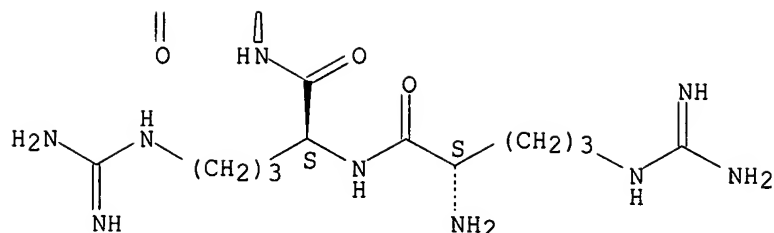
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Ball, D | 1993 | 90 | 5648 | Proceedings of the N | HCAPLUS |
| Black, B | 1996 | 271 | 26659 | Journal of Biological | HCAPLUS |
| Del Amo Francisco, F | 1993 | 1171 | 323 | Biochimica et Biophy | |
| Johnson, J | 1990 | 346 | 858 | Nature | HCAPLUS |
| Levesque, M | 2000 | | | US 6087168 A | HCAPLUS |
| Lo, L | 1998 | 125 | 609 | Development | HCAPLUS |
| Sommer, L | 1995 | 15 | 1245 | Neuron | HCAPLUS |
| Sunita, V | 1996 | 180 | 605 | Developmental Biolog | |
| Yuji, S | 1999 | 444 | 43 | FEBS Letters | |

L59 ANSWER 35 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:31529 HCAPLUS

DN 136:117377

TI Antibodies to B lymphocyte stimulator (BLyS)

IN Ruben, Steven M.; Barash, Steven C.; Choi, Gil H.; Vaughan, Tristan; Hilbert, David

PA Human Genome Sciences, Inc., USA; Cambridge Antibody Technology Ltd.

SO PCT Int. Appl., 3148 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 19

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|--------------|
| WO 2002002641 | A1 | 20020110 | WO 2001-US19110 | 20010615 <-- |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |

EP 1577391 A1 20050921 EP 2005-12261 19961025 <--
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI

CA 2407910 AA 20020110 CA 2001-2407910 20010615 <--
 EP 1294769 A1 20030326 EP 2001-946365 20010615 <--
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JP 2004509615 T2 20040402 JP 2002-507892 20010615 <--
 CN 1492878 A 20040428 CN 2001-811296 20010615 <--
 NZ 522700 A 20060224 NZ 2001-522700 20010615 <--
 AU 2001054180 A5 20020725 AU 2001-54180 20010703 <--
 AU 779750 B2 20050210
 JP 2004129667 A2 20040430 JP 2003-362615 20031022 <--

PRAI US 2000-212210P P 20000616 <--
 US 2000-240816P P 20001017 <--
 US 2001-276248P P 20010316 <--
 US 2001-277379P P 20010321 <--
 US 2001-293499P P 20010525 <--
 AU 1996-76745 A3 19961025 <--
 EP 1996-939612 A3 19961025 <--
 JP 1998-520411 A3 19961025 <--
 WO 2001-US19110 W 20010615 <--

AB The authors disclose the preparation and characterization of single-chain antibodies that specifically bind to BLYS. The present invention also relates to methods and compns. for detecting, diagnosing, or treating a disease or disorder associated with aberrant BLYS expression.

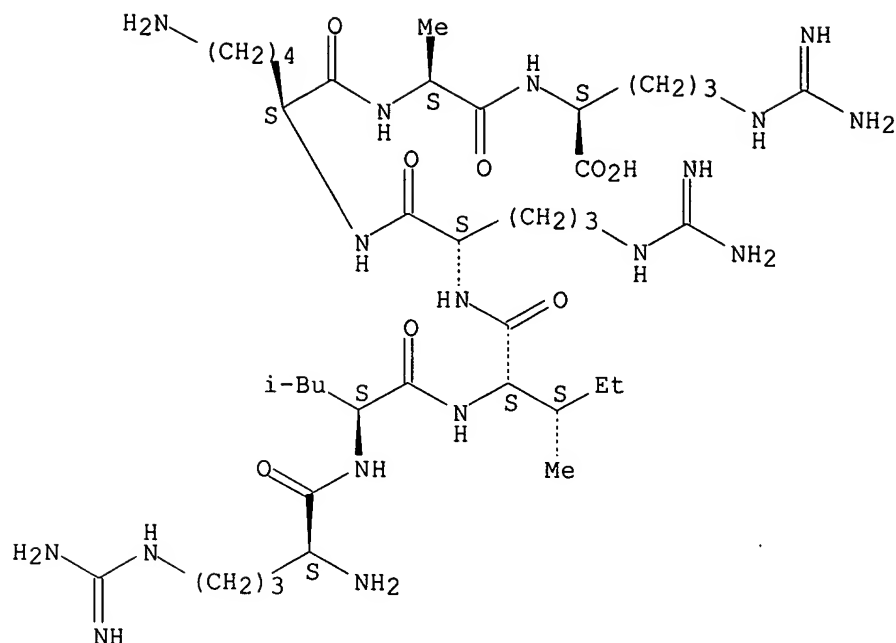
IT **389116-42-1**
 RL: PRP (Properties)
 (amino acid sequence; heavy chain CDR3 for human antibodies to B lymphocyte stimulator)

IT **389116-42-1**
 RL: PRP (Properties)
 (amino acid sequence; heavy chain CDR3 for human antibodies to B lymphocyte stimulator)

RN 389116-42-1 HCAPLUS

CN L-Arginine, L-arginyl-L-leucyl-L-isoleucyl-L-arginyl-L-lysyl-L-alanyl-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Nardelli | 2001 | 97 | 198 | Blood | HCAPLUS |

L59 ANSWER 36 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:935354 HCAPLUS

DN 136:64094

TI The use of synthetic, non-hormonal 21-aminosteroids, derivatives, metabolites, and precursors thereof in the treatment of viral infections

IN Prendergast, Patrick Thomas

PA Kotze, Gavin Salomon, S. Afr.

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 2001097749 | A2 | 20011227 | WO 2001-IB1101 | 20010622 <-- |
| | WO 2001097749 | A3 | 20020523 | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | AU 2001074383 | A5 | 20020102 | AU 2001-74383 | 20010622 <-- |
| PRAI | IE 2000-511 | A | 20000623 | <-- | |
| | IE 2001-275 | A | 20010321 | <-- | |

WO 2001-IB1101 W 20010622 <--

AB The invention discloses the use of synthetic, non-hormonal 21-aminosteroids, derivs., metabolites, and precursors thereof in the treatment of viral infections, particularly hepatitis and retroviral infection by HIV. Synthetic non-hormonal 21-aminosteroids are disclosed for use in the prophylaxis and therapy of hepatitis viral infections. These compds. can be administered alone or in combination with conventional antiviral agents.

IT 153127-49-2, ALX40-4C
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (aminosteroids, derivs., metabolites, and precursors for treatment of viral infection, and use with other agents)

IT 153127-49-2, ALX40-4C
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (aminosteroids, derivs., metabolites, and precursors for treatment of viral infection, and use with other agents)

RN 153127-49-2 HCAPLUS

CN D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-, nonaacetate (9CI) (CA INDEX NAME)

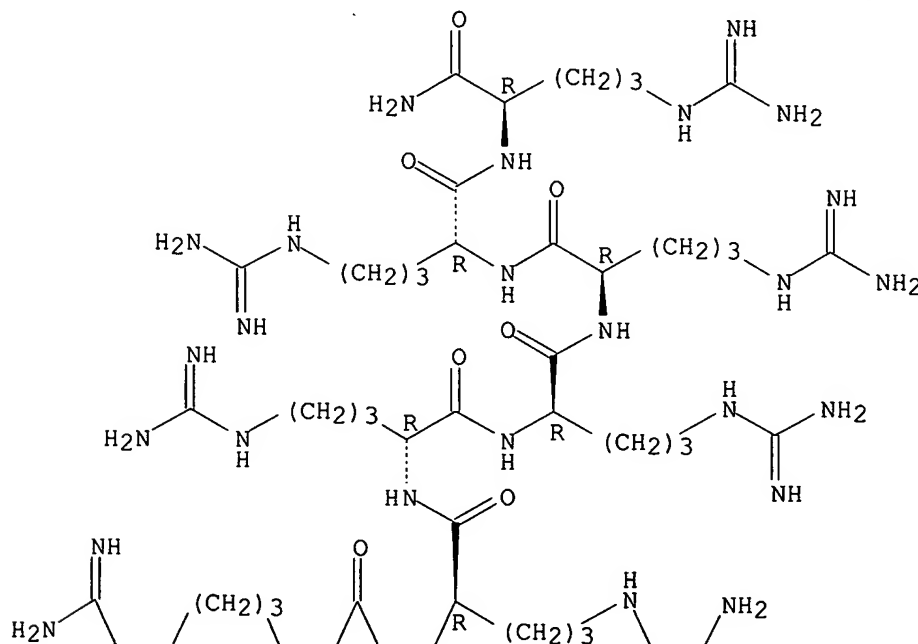
CM 1

CRN 143413-49-4

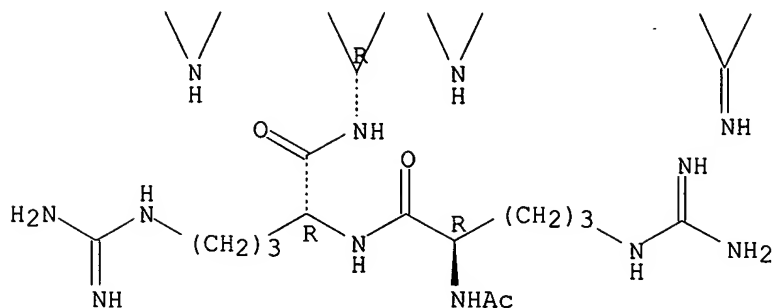
CMF C56 H113 N37 O10

Absolute stereochemistry.

PAGE 1-A

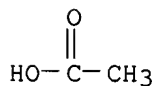


PAGE 2-A



CM 2

CRN 64-19-7
CMF C2 H4 O2



L59 ANSWER 37 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:885823 HCAPLUS

DN 136:42834

TI Tumor activated prodrug compounds

IN Trouet, Andre; Dubois, Vincent; Oronsky, Arnold

PA Universite Catholique De Louvain, Belg.

SO PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|--|----------|-----------------|--------------|
| PI | WO 2001091798 | A2 | 20011206 | WO 2001-EP6106 | 20010529 <-- |
| | WO 2001091798 | A3 | 20021205 | | |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| | CA 2408103 | AA | 20011206 | CA 2001-2408103 | 20010529 <-- |
| | EP 1286700 | A2 | 20030305 | EP 2001-957808 | 20010529 <-- |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | |
| | JP 2003534387 | T2 | 20031118 | JP 2001-587810 | 20010529 <-- |
| | US 2004014652 | A1 | 20040122 | US 2003-296954 | 20030616 <-- |
| PRAI | US 2000-208996P | P | 20000601 | <-- | |
| | EP 2000-870130 | A | 20000615 | <-- | |

jan delaval - 7 september 2006

EP 2000-870306 A 20001218 <--
 WO 2001-EP6106 W 20010529 <--

OS MARPAT 136:42834

AB The invention is directed to novel prodrug compds., compns. comprising the prodrugs, methods of making and using them. The prodrugs comprise a biol. active entity linked to a masking moiety via a linking moiety. The prodrug compds. are selectively activated at or near target cells and display lower toxicity and possibly a longer in vivo or serum half-life than the corresponding naked biol. active entity. A IGF-1 antagonist is used to prepare a dual prodrug with doxorubicin. For the dual prodrug, **conjugation** takes place at the carboxyterminus of the antagonist rather than on its free N-terminal amino group. The in vivo toxicity of the dual prodrug is evaluated, and its chemotherapeutic activity is compared to that of Dox and of the IGF-1 antagonist, alone or in combination.

IT **143413-47-2D**, prodrugs **153127-44-7D**, prodrugs

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (tumor activated prodrug compds.)

IT **143413-47-2D**, prodrugs

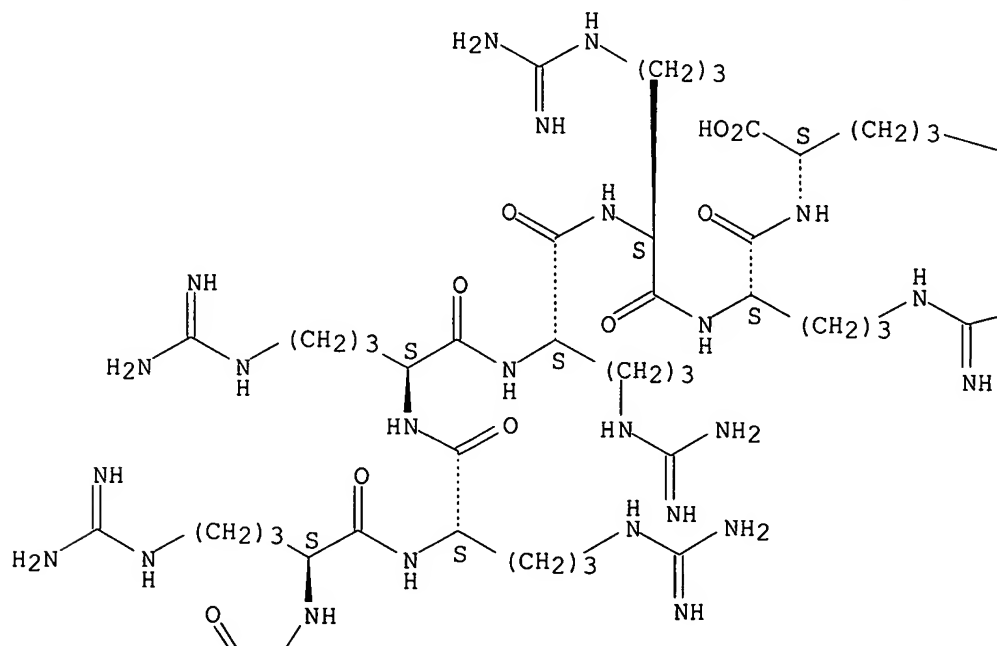
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (tumor activated prodrug compds.)

RN 143413-47-2 HCAPLUS

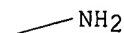
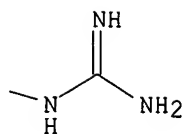
CN L-Arginine, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

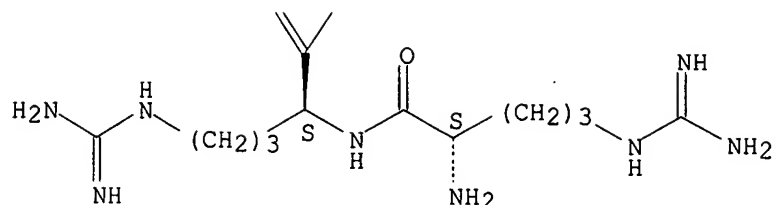
PAGE 1-A



PAGE 1-B



PAGE 2-A



L59 ANSWER 38 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:489483 HCAPLUS

DN 135:102578

TI BH4-fused polypeptides

IN Shimizu, Shigeomi; Tsujimoto, Yoshihide

PA Shionogi + Co., Ltd, Japan

SO PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 2001048014 | A1 | 20010705 | WO 2000-JP9274 | 20001226 <-- |
| | W: CA, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| | EP 1243595 | A1 | 20020925 | EP 2000-985913 | 20001226 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR | | | | |
| | US 2003152946 | A1 | 20030814 | US 2002-169223 | 20020627 <-- |
| PRAI | JP 1999-371449 | A | 19991227 | <-- | |
| | WO 2000-JP9274 | W | 20001226 | <-- | |

AB BH4-fused polypeptides which contain the amino acid sequence of a polypeptide capable of exerting an effect of enabling uptake into cells or a derivative sequence thereof, and an amino acid sequence selected from the group consisting of: (A) amino acid sequences at least containing the BH4 domain sequence (SEQ ID NO:1) of an anti-apoptosis Bcl-2 family protein, (B) amino acid sequences derived from the amino acid sequence represented by SEQ ID NO:1 by substitution, deletion or insertion of at least one amino acid residue, and (C) amino acid sequences having a sequence homol.

of at least 50 with the amino acid sequence represented by SEQ ID NO:1, and are capable of inhibiting apoptosis; apoptosis inhibitors containing these BH4-fused proteins; a method of treating ischemic diseases which comprises administering these apoptosis inhibitors to patients with ischemic diseases to thereby inhibit apoptosis and treat the ischemic diseases; and use of the BH4-fused proteins for producing preventives or remedies for ischemic diseases. Thus, apoptosis can be efficiently inhibited and it is expected that the BH4-fused proteins are applicable to remedies for AIDS, neurodegenerative diseases, myelodysplastic diseases, ischemic diseases, infective multiple failure, fulminant hepatitis, diabetes, etc.

IT 123251-89-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(BH4-fused polypeptides for treatment of AIDS, neurodegenerative diseases, myelodysplastic diseases, ischemic diseases, infective multiple failure, fulminant hepatitis and diabetes)

IT 123251-89-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

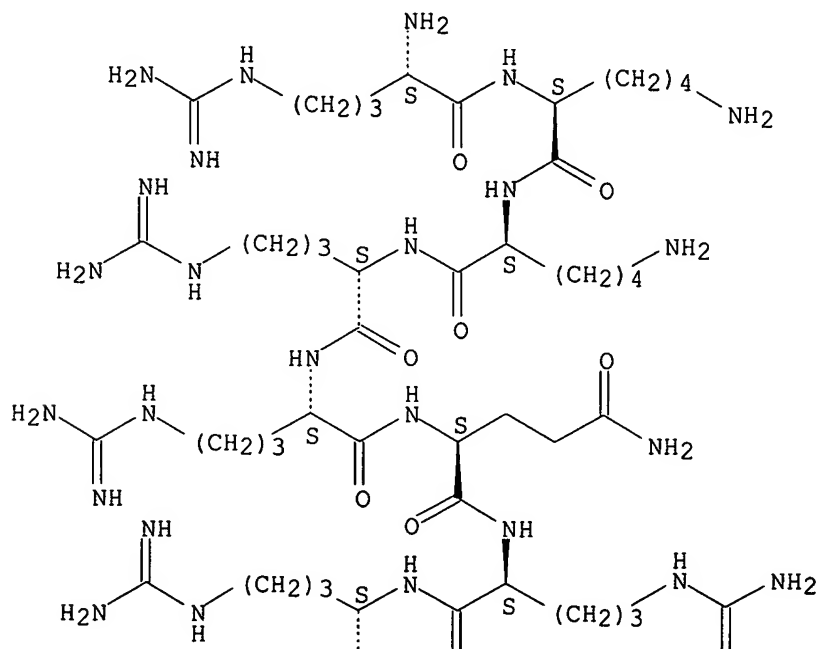
(BH4-fused polypeptides for treatment of AIDS, neurodegenerative diseases, myelodysplastic diseases, ischemic diseases, infective multiple failure, fulminant hepatitis and diabetes)

RN 123251-89-8 HCAPLUS

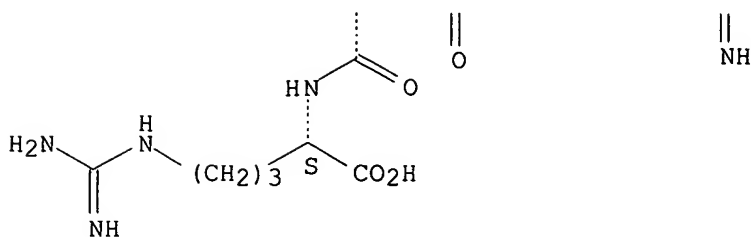
CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutamyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Shimizu, S | 1999 | 399 | 483 | Nature | HCAPLUS |
| Tsujimoto, Y | 1985 | 228 | 1440 | Science | HCAPLUS |

L59 ANSWER 39 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:489209 HCAPLUS

DN 135:111952

TI Histidine copolymer for delivery of drugs into cells

IN Mixson, A. James

PA USA

SO PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-----------------|--|----------|-----------------|--------------|
| PI | WO 2001047496 | A1 | 20010705 | WO 2000-US34603 | 20001220 <-- |
| | W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | |
| | RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | |
| | CA 2394758 | AA | 20010705 | CA 2000-2394758 | 20001220 <-- |
| | EP 1242052 | A1 | 20020925 | EP 2000-986605 | 20001220 <-- |
| | R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | |
| | US 2003045465 | A1 | 20030306 | US 2001-18103 | 20011105 <-- |
| | US 2003165567 | A1 | 20030904 | US 2002-131909 | 20020425 <-- |
| | US 7070807 | B2 | 20060704 | | |
| PRAI | US 1999-173576P | P | 19991229 | <-- | |
| | WO 2000-US34603 | W | 20001220 | <-- | |
| | US 2001-18103 | A2 | 20011105 | <-- | |

AB The invention provides a pharmaceutical agent delivery composition comprising:
 (i) a transport polymer comprising a linear or branched peptide having from about 10 to about 300 amino acid residues, having from about 5 to 100 histidine residues, and optionally having from 0 to about 95 non-histidine amino acid residues; (ii) at least one pharmaceutical agent; and optionally (iii) one or more intracellular delivery components in association with the transport polymer. The invention also provides methods for using such composition to deliver the pharmaceutical agent to the interior of cells.

IT 349451-29-2

RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (biol. transport-promoting; histidine copolymer for delivery of drugs into cells)

IT 349451-29-2

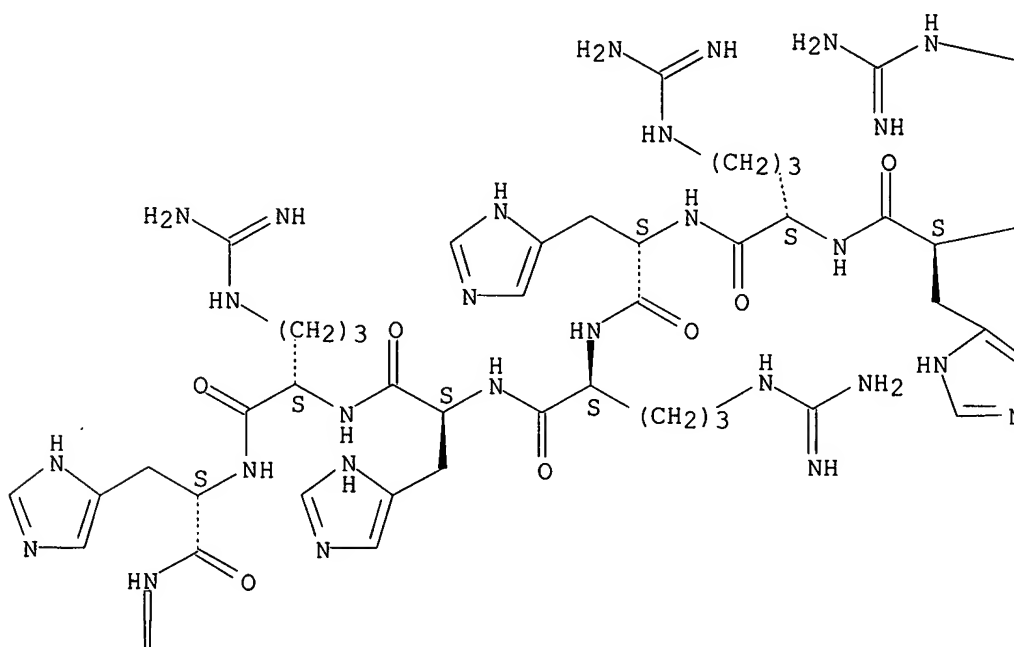
RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (biol. transport-promoting; histidine copolymer for delivery of drugs into cells)

RN 349451-29-2 HCAPLUS

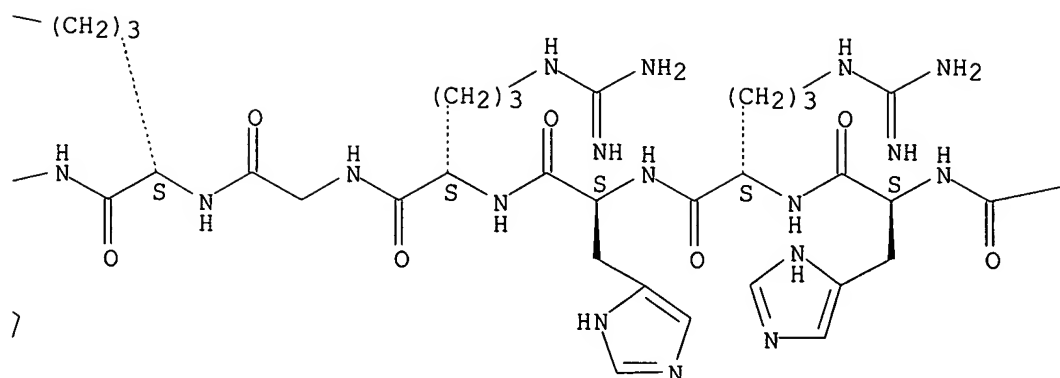
CN L-Arginine, L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginylglycyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl-L-arginyl-L-histidyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

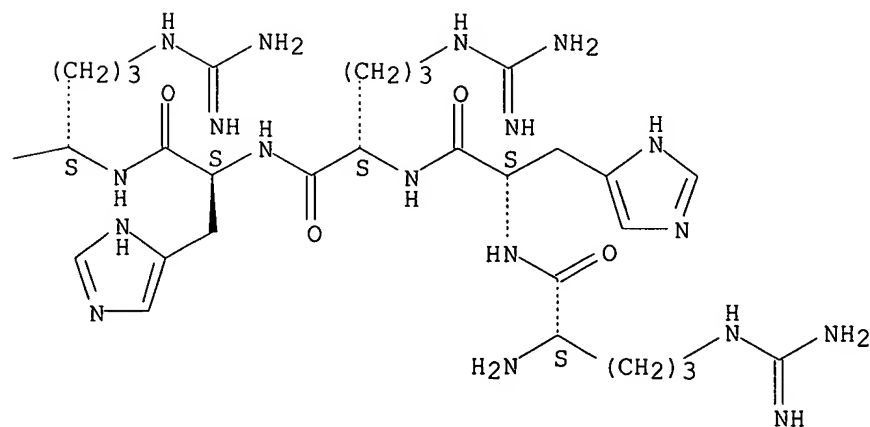
PAGE 1-A



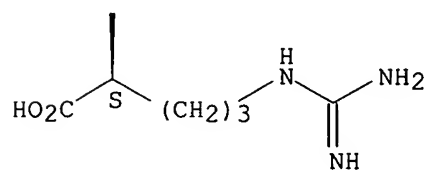
PAGE 1-B



PAGE 1-C



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Mathiowitz | 1999 | | | US 5985354 A | HCAPLUS |

L59 ANSWER 40 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

jan delaval - 7 september 2006

AN 2001:440198 HCAPLUS
 DN 135:121177
 TI Inducing cellular immune responses to human immunodeficiency virus-1 using peptide and nucleic acid compositions
 IN Sette, Alessandro; Sidney, John; Southwood, Scott; Livingston, Brian D.; Chesnut, Robert; Baker, Denise Marie; Celis, Esteban; Kubo, Ralph T.; Grey, Howard M.
 PA Epimmune Inc., USA
 SO PCT Int. Appl., 448 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 18

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 2001024810 | A1 | 20010412 | WO 2000-US27766 | 20001005 <-- |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2386499 | AA | 20010412 | CA 2000-2386499 | 20001005 <-- |
| | EP 1225907 | A1 | 20020731 | EP 2000-972031 | 20001005 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL | | | | |
| | JP 2003510099 | T2 | 20030318 | JP 2001-527809 | 20001005 <-- |
| PRAI | US 1999-412863 | A | 19991005 | <-- | |
| | WO 2000-US27766 | W | 20001005 | <-- | |

AB This invention uses knowledge of the mechanisms by which antigens are recognized by T cells to identify and prepare human immunodeficiency virus (HIV) epitopes, and to develop epitope-based vaccines directed towards HIV. More specifically, this application communicates the discovery of pharmaceutical compns. and methods of use in the prevention and treatment of HIV infection.

IT 334752-75-9
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (HIV A03 motif peptides with binding information; epitopes of HIV-1, cytotoxic T lymphocyte and helper T lymphocyte as vaccine for inducing cellular immune responses to human immunodeficiency virus-1)

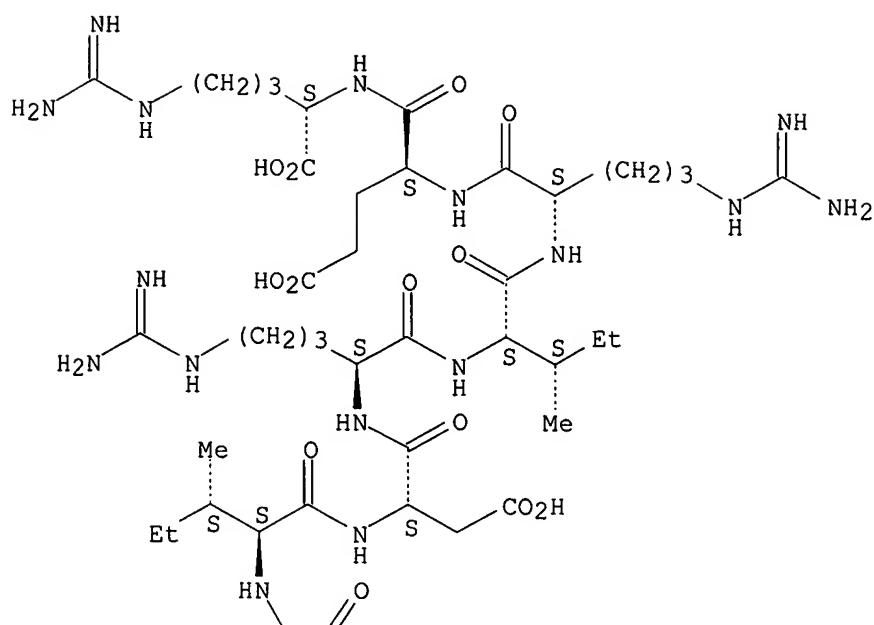
IT 334752-75-9
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (HIV A03 motif peptides with binding information; epitopes of HIV-1, cytotoxic T lymphocyte and helper T lymphocyte as vaccine for inducing cellular immune responses to human immunodeficiency virus-1)

RN 334752-75-9 HCAPLUS

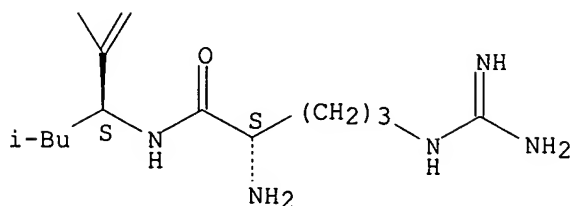
CN L-Arginine, L-arginyl-L-leucyl-L-isoleucyl-L- α -aspartyl-L-arginyl-L-isoleucyl-L-arginyl-L- α -glutamyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 41 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2001:435102 HCAPLUS
 DN 135:56043
 TI Complementary peptide ligands generated from higher eukaryote genome sequences
 IN Roberts, Gareth Wyn; Heal, Jonathan Richard
 PA Proteom Limited, UK
 SO PCT Int. Appl., 488 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

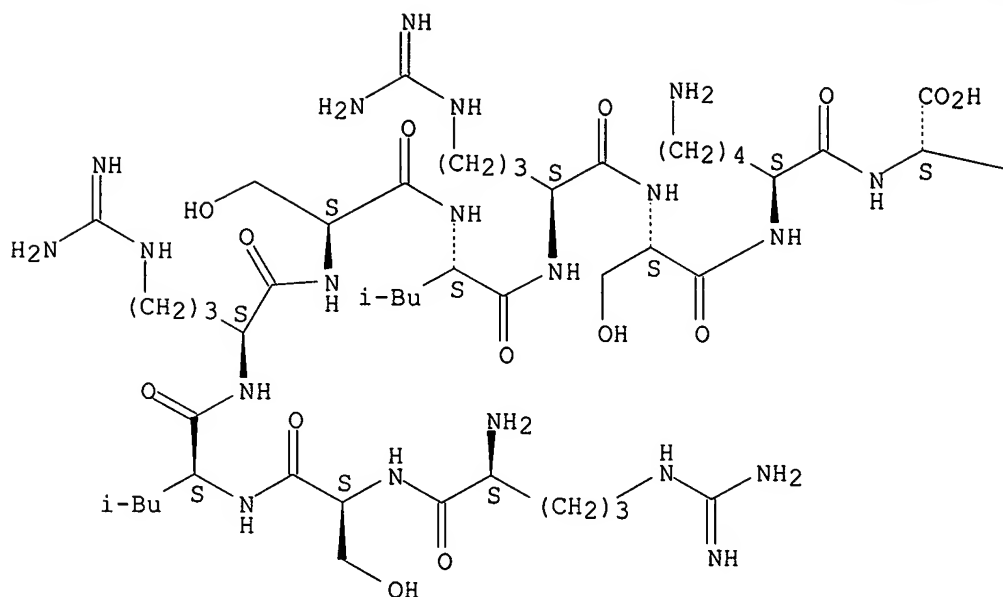
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|--------------|
| WO 2001042276 | A1 | 20010614 | WO 2000-GB4773 | 20001213 <-- |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, | | | | |

LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
AU 2001018721 A5 20010618 AU 2001-18721 20001213 <--
EP 1244691 A1 20021002 EP 2000-981486 20001213 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI GB 1999-29471 A 19991213 <--
WO 2000-GB4773 W 20001213 <--
AB The invention relates to the identification of complementary peptides from
the anal. of protein and nucleotide sequence databases from higher
eukaryote genomes excluding human and plants. These specific
complementary peptides interact with their relevant target proteins
encoded in the eukaryote genome. Specific complementary peptides to the
proteins encoded in the eukaryote genome can be used as reagents and drugs
from drug discovery programs and as lead ligands to facilitate drug design
and development.
IT **345608-54-0**
RL: PRP (Properties)
(Unclaimed; complementary peptide ligands generated from higher
eukaryote genome sequences)
IT **345591-17-5 345603-11-4 345603-21-6**
RL: PRP (Properties)
(unclaimed sequence; complementary peptide ligands generated from
higher eukaryote genome sequences)
IT **345608-54-0**
RL: PRP (Properties)
(Unclaimed; complementary peptide ligands generated from higher
eukaryote genome sequences)
RN 345608-54-0 HCAPLUS
CN L-Arginine, L-arginyl-L-seryl-L-leucyl-L-arginyl-L-seryl-L-leucyl-L-
arginyl-L-seryl-L-lysyl- (9CI) (CA INDEX NAME)

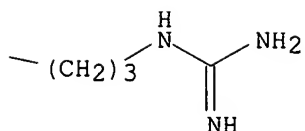
Absolute stereochemistry.

RSL RSL RSL RSL RSL

PAGE 1-A



PAGE 1-B



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Heal, J | 1999 | 36 | 1131 | MOLECULAR IMMUNOLOGY | |
| William, R | 1988 | 183 | 63 | METHODS IN ENZYMOLOG | |
| William, R | 1988 | 85 | 2444 | PROC NATL ACAD SCI U | |

L59 ANSWER 42 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:338365 HCAPLUS

DN 134:344610

TI Cytotoxic T lymphocyte-stimulating peptides for prevention, treatment, and diagnosis of melanoma

IN Hogan, Kevin T.; Ross, Mark H.; Slingluff, Craig L.

PA Argonex Pharmaceuticals, USA

SO PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DT Patent

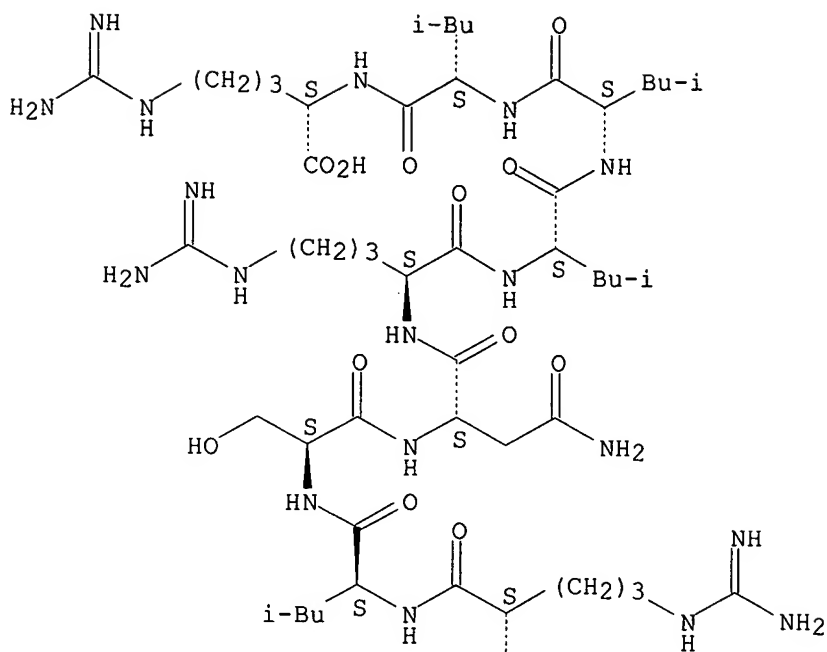
LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|--------------|
| PI | WO 2001032193 | A1 | 20010510 | WO 2000-US29679 | 20001027 <-- |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| PRAI | US 1999-162480P | P | 19991029 | <-- | |
| AB | The present invention relates to compns. and methods for the prevention, treatment, and diagnosis of cancer, specifically malignant melanoma. The invention discloses peptides derived from one or more presently unidentified genes, as well as variants of these proteins that can be used to stimulate a CTL response against melanoma. Further disclosed, is a peptide derived from gp100, which can also be used to stimulate a CTL response against melanoma. | | | | |
| IT | 338458-37-0 338458-39-2 338458-40-5 338458-41-6 338458-42-7 338458-43-8 338458-44-9 338458-45-0 338458-46-1 338458-47-2 338458-48-3 338458-49-4 338458-50-7 338458-51-8 338458-52-9 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (cytotoxic T lymphocyte-stimulating peptides for prevention, treatment, and diagnosis of melanoma) | | | | |
| IT | 338458-37-0 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (cytotoxic T lymphocyte-stimulating peptides for prevention, treatment, and diagnosis of melanoma) | | | | |
| RN | 338458-37-0 HCAPLUS | | | | |
| CN | L-Arginine, L-arginyl-L-leucyl-L-seryl-L-asparaginyl-L-arginyl-L-leucyl-L-leucyl-L-leucyl- (9CI) (CA INDEX NAME) | | | | |

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A

⋮
NH₂

RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Epimmune Inc | 1999 | | | WO 9945954 A1 | HCAPLUS |
| University Of Virginia | 1997 | | | WO 9734613 A1 | HCAPLUS |

L59 ANSWER 43 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:311711 HCAPLUS

DN 135:43973

TI Characteristics of membrane permeable arginine-rich peptides

AU Suzuki, Tomoki; Ohashi, Wakana; Nakase, Ikuhiko; Tanaka, Seigo; Ueda, Kunihiro; Futaki, Shiroh; Sugiura, Yukio

CS Institute for Chemical Research, Kyoto University, Kyoto, 611-0011, Japan

SO Peptide Science (2001), Volume Date 2000, 37th, 89-92

CODEN: PSCIFQ; ISSN: 1344-7661

PB Japanese Peptide Society

DT Journal

LA English

AB Arginine-rich basic peptides have been reported to be cell membrane-permeable and to have a function of protein delivery into cells. Arginine residues in these peptides are considered to play a critical role for the characteristics. Fluorescence microscopic observation and quantification of the internalized (Arg)_n peptides (n=4,6,8,10,12,16) to

IT 74386-12-2 148796-87-6

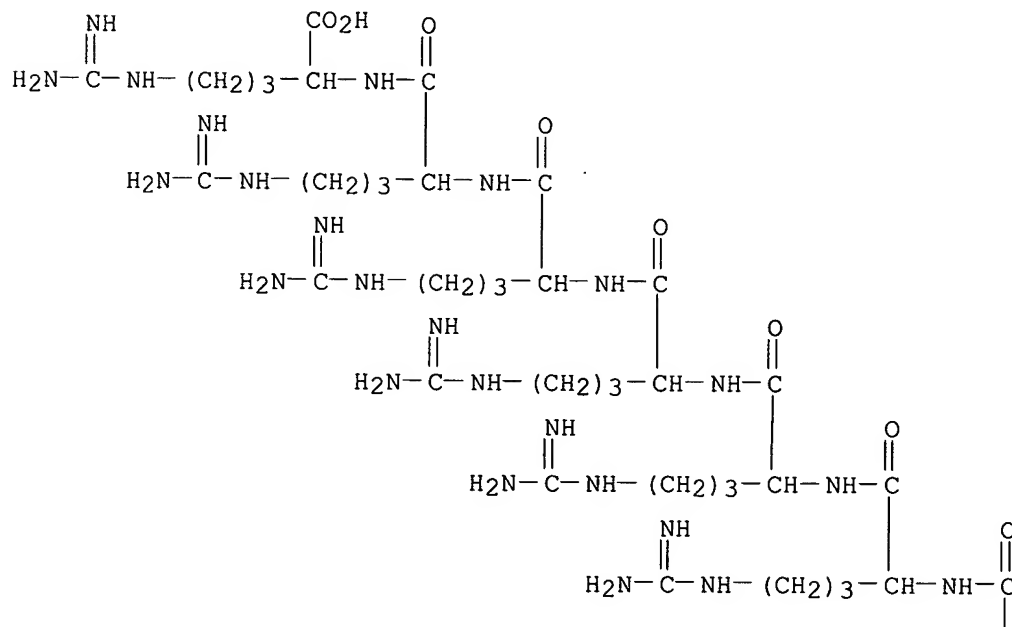
IT 74386-12-2

(cell membrane permeability for arginine-rich peptides)

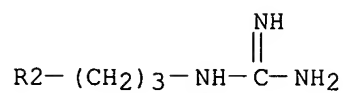
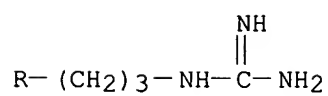
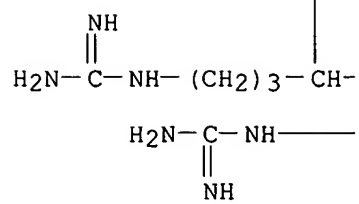
RN 74386-12-2 HCAPLUS

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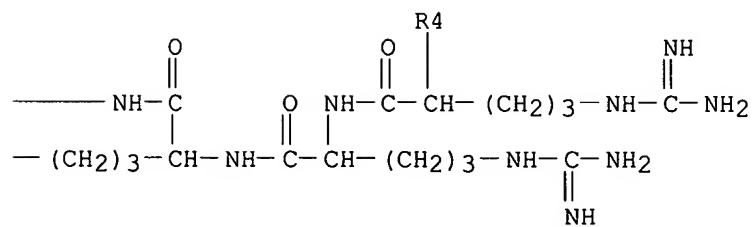
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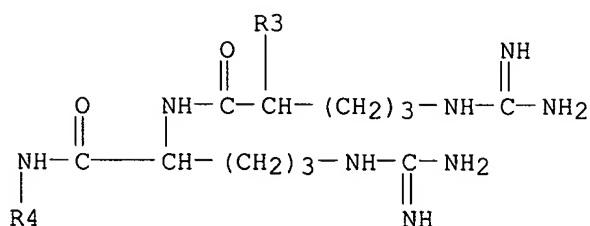
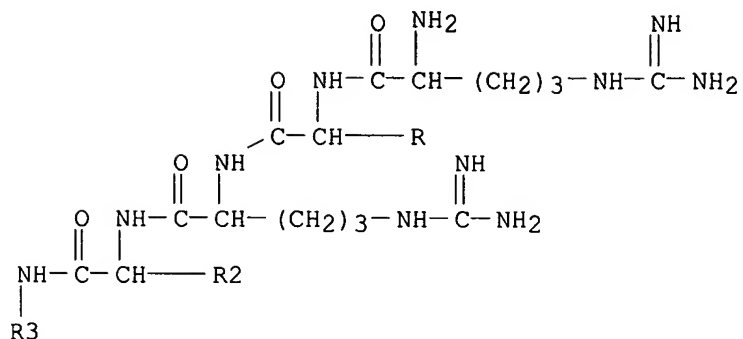
PAGE 2-A



PAGE 2-B



PAGE 3-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Derossi, D | 1994 | 269 | 10444 | J Biol Chem | HCAPLUS |
| Futaki, S | 2000 | 1999 | 241 | Peptide Science | |
| Vives, E | 1997 | 272 | 16010 | J Biol Chem | HCAPLUS |

L59 ANSWER 44 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:166563 HCAPLUS

DN 134:337296

TI Arginine-rich peptides: an abundant source of membrane-permeable peptides having potential as carriers for intracellular protein delivery

AU Futaki, Shiroh; Suzuki, Tomoki; Ohashi, Wakana; Yagami, Takeshi; Tanaka, Seigo; Ueda, Kunihiro; Sugiura, Yukio

CS Institute for Chemical Research, Kyoto University, Kyoto, 611-0011, Japan

SO Journal of Biological Chemistry (2001), 276(8), 5836-5840

CODEN: JBCHA3; ISSN: 0021-9258

PB American Society for Biochemistry and Molecular Biology

DT Journal

LA English

AB A basic peptide derived from human immunodeficiency virus (HIV)-1 Tat protein (positions 48-60) has been reported to have the ability to translocate through the cell membranes and accumulate in the nucleus, the characteristics of which are utilized for the delivery of exogenous proteins into cells. Based on the fluorescence microscopic observations of mouse macrophage RAW264.7 cells, we found that various arginine-rich peptides have a translocation activity very similar to Tat-(48-60). These included such peptides as the D-amino acid- and arginine-substituted Tat-(48-60), the RNA-binding peptides derived from virus proteins, such as HIV-1 Rev, and flock house virus coat proteins, and the DNA binding segments of leucine zipper proteins, such as cancer-related proteins c-Fos and c-Jan, and the yeast transcription factor GCN4. These segments have

no specific primary and secondary structures in common except that they have several arginine residues in the sequences. Moreover, these peptides were internalized even at 4°. These results strongly suggested the possible existence of a common internalization mechanism ubiquitous to arginine-rich peptides, which is not explained by a typical endocytosis. Using (Arg) n ($n = 4-16$) peptides, we also demonstrated that there would be an optimal number of arginine residues (n .apprx. 8) for the efficient translocation.

IT 208646-07-5

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(R10; arginine-rich peptides as potential carriers for intracellular protein delivery)

IT 337516-36-6

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(R12; arginine-rich peptides as potential carriers for intracellular protein delivery)

IT 208646-07-5

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

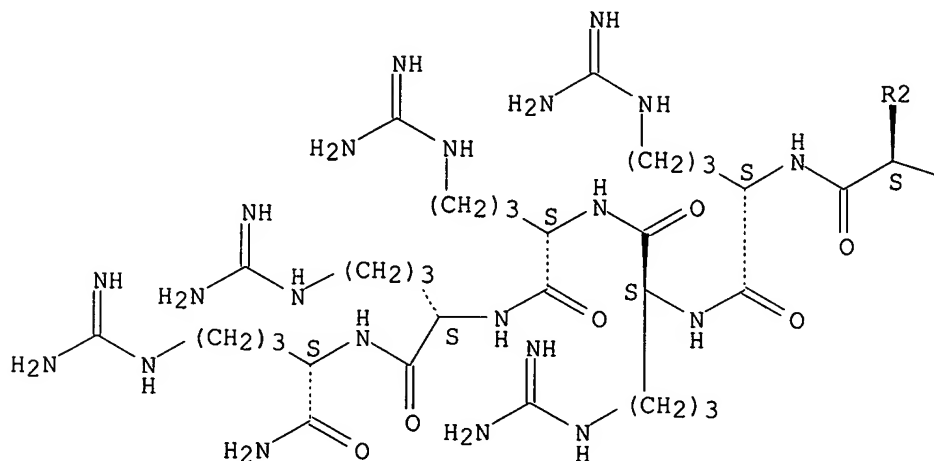
(R10; arginine-rich peptides as potential carriers for intracellular protein delivery)

RN 208646-07-5 HCAPLUS

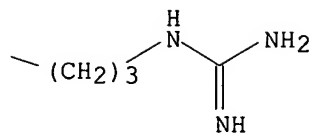
CN L-Argininamide, L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

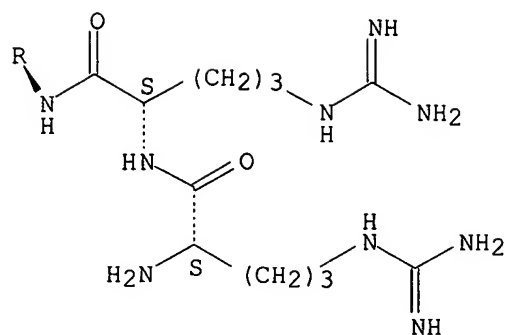
PAGE 1-A



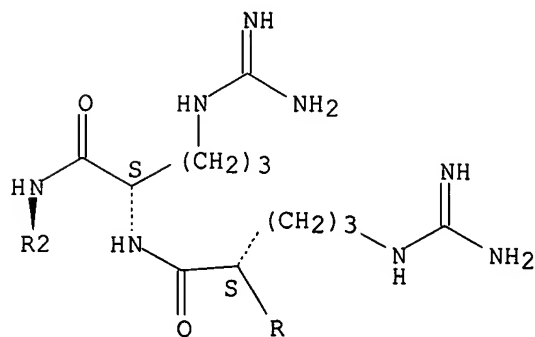
PAGE 1-B



PAGE 2-A



PAGE 3-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Calnan, B | 1991 | 252 | 1167 | Science | HCAPLUS |
| Chang, H | 1997 | 11 | 1421 | AIDS | HCAPLUS |
| Derossi, D | 1994 | 269 | 10444 | J Biol Chem | HCAPLUS |
| Derossi, D | 1996 | 271 | 18188 | J Biol Chem | HCAPLUS |
| Derossi, D | 1998 | 18 | 184 | Trends Cell Biol | HCAPLUS |
| Fawell, S | 1994 | 91 | 1664 | Proc Natl Acad Sci U | HCAPLUS |
| Futaki, S | 1997 | 15 | 1883 | Bioorg Med Chem | HCAPLUS |
| Gorlich, D | 1996 | 271 | 1513 | Science | HCAPLUS |
| Huq, I | 1999 | 38 | 15172 | Biochemistry | HCAPLUS |

| | | | | | |
|--------------|------|-----|-------|----------------------|---------|
| Kalderon, D | 1984 | 39 | 499 | Cell | HCAPLUS |
| Lin, Y | 1995 | 270 | 14255 | J Biol Chem | HCAPLUS |
| Nagahara, H | 1998 | 4 | 1449 | Nat Med | HCAPLUS |
| Rojas, M | 1996 | 271 | 27456 | J Biol Chem | HCAPLUS |
| Rojas, M | 1998 | 16 | 370 | Nat Biotechnol | HCAPLUS |
| Schwarze, S | 1999 | 285 | 1569 | Science | HCAPLUS |
| Schwarze, S | 2000 | 21 | 45 | Trends Pharmacol Sci | HCAPLUS |
| Tachibana, R | 1998 | 251 | 538 | Biochem Biophys Res | HCAPLUS |
| Tan, R | 1995 | 92 | 5282 | Proc Natl Acad Sci U | HCAPLUS |
| Vives, E | 1997 | 272 | 16010 | J Biol Chem | HCAPLUS |

L59 ANSWER 45 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:152524 HCAPLUS

DN 134:212694

TI Compositions and methods for enhancing drug delivery across and into epithelial tissues

IN Rothbard, Jonathan B.; Wender, Paul A.; McGrane, P. Leo; Sista, Lalitha V. S.; Kirschberg, Thorsten A.

PA Cellgate, Inc., USA

SO PCT Int. Appl., 116 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| | ----- | --- | ----- | ----- | ----- |
| PI | WO 2001013957 | A2 | 20010301 | WO 2000-US23440 | 20000824 <-- |
| | WO 2001013957 | A3 | 20011004 | | |
| | W: | | | | |
| | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, | | | | |
| | CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, | | | | |
| | HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, | | | | |
| | LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, | | | | |
| | SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, | | | | |
| | ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | | | | |
| | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, | | | | |
| | DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, | | | | |
| | CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2381425 | AA | 20010301 | CA 2000-2381425 | 20000824 <-- |
| | EP 1210121 | A2 | 20020605 | EP 2000-957830 | 20000824 <-- |
| | R: | | | | |
| | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, | | | | |
| | IE, SI, LT, LV, FI, RO, MK, CY, AL | | | | |
| | JP 2003507438 | T2 | 20030225 | JP 2001-518092 | 20000824 <-- |
| | AU 769315 | B2 | 20040122 | AU 2000-69394 | 20000824 <-- |
| | AU 2000069394 | A5 | 20010319 | | |
| | US 6730293 | B1 | 20040504 | US 2000-645689 | 20000824 <-- |
| PRAI | US 1999-150510P | P | 19990824 | <-- | |
| | WO 2000-US23440 | W | 20000824 | <-- | |

OS MARPAT 134:212694

AB This invention provides compns. and methods for enhancing delivery of drugs and other agents across epithelial tissues, including the skin, gastrointestinal tract, pulmonary epithelium, and the like. The compns. and methods are also useful for delivery across endothelial tissues, including the blood brain barrier. The compns. and methods employ a delivery-enhancing transport that has sufficient guanidino or amidino sidechain moieties to enhance delivery of a compound conjugated to the reagent across one or more layers of the tissue, compared to the non-conjugated compound. The delivery enhancing polymers include, for example, poly-arginine mols. that are preferably between about 6 and 25 residues in length.

IT 328234-41-9P 328234-42-0P

RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(compsn. and methods for enhancing drug delivery across and into epithelial tissues)

IT **328234-41-9P**

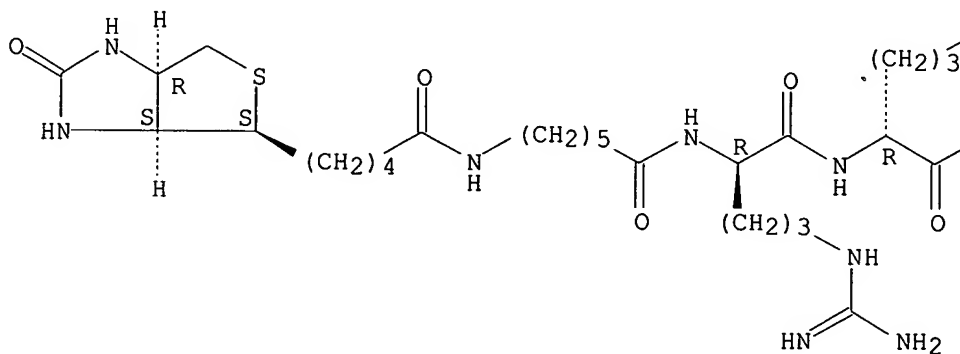
RL: PNU (Preparation, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(compsn. and methods for enhancing drug delivery across and into epithelial tissues)

RN 328234-41-9 HCAPLUS

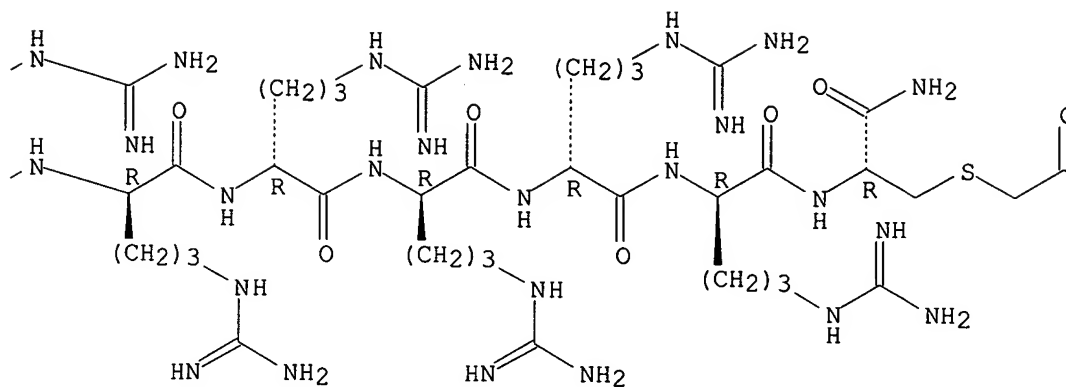
CN Cyclosporin A, 6-[(2S,3R,4R,6E)-3-[(mercaptoacetyl)oxy]-4-methyl-2-(methylamino)-6-octenoic acid]-, (6→8')-thioether with
N2-[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]-1-oxohexyl]-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-L-cysteinamide (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

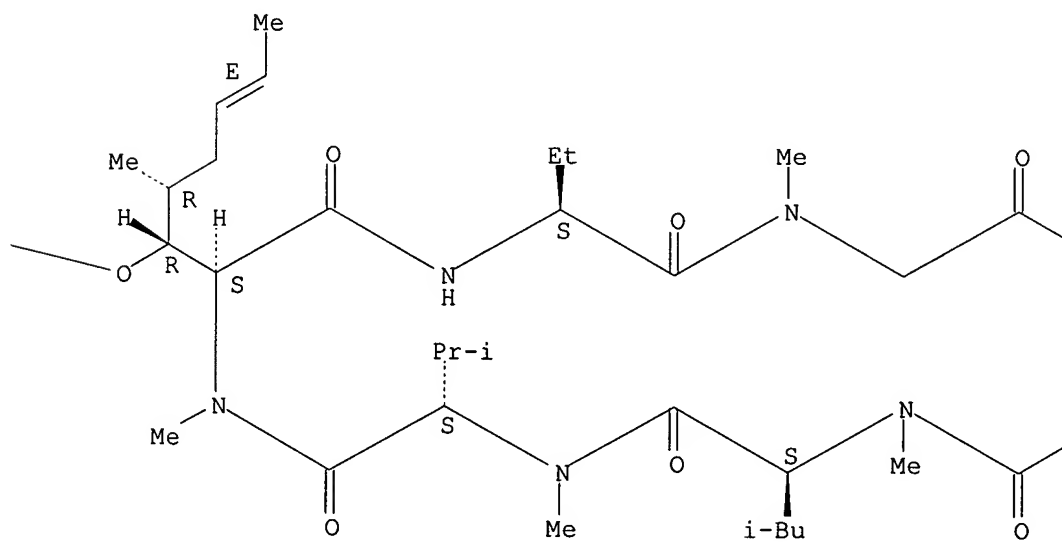
PAGE 1-A



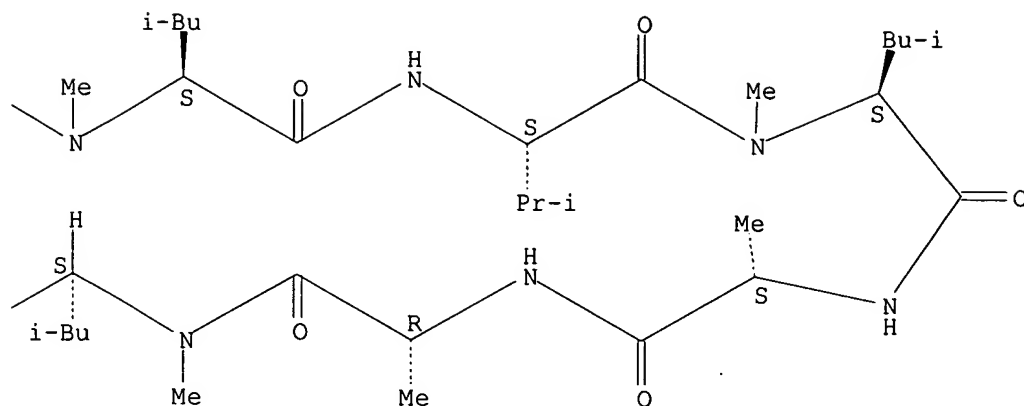
PAGE 1-B



PAGE 1-C



PAGE 1-D



L59 ANSWER 46 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2001:145156 HCAPLUS
 DN 134:206555
 TI Methods and compositions for impairing multiplication of HIV-1
 IN Goldstein, Gideon
 PA Thymon L.L.C., USA
 SO U.S., 63 pp., Cont.-in-part of U.S. 5,891,994.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|--------------|
| PI | US 6193981 | B1 | 20010227 | US 1998-113921 | 19980710 <-- |
| | US 5891994 | A | 19990406 | US 1997-893853 | 19970711 <-- |
| | US 6525179 | B1 | 20030225 | US 1999-451067 | 19991130 <-- |
| | US 2003194408 | A1 | 20031016 | US 2002-86208 | 20020228 <-- |
| | US 7008622 | B2 | 20060307 | | |
| | US 2003166832 | A1 | 20030904 | US 2002-262435 | 20020930 <-- |
| PRAI | US 1997-893853 | A2 | 19970711 | <-- | |
| | US 1998-113921 | A3 | 19980710 | <-- | |
| | US 1999-451067 | A3 | 19991130 | <-- | |

AB A composition which elicits antibodies to greater than 95%, and even greater than 99%, of the known variants of HIV-1 Tat protein contains at least one peptide or polypeptide of the formula of Epitope I (based on amino acids 2-10 of HIV-1 Tat consensus sequence) and optionally one or more of a peptide or polypeptide of Epitope II (based on amino acids 41 to 51 of that sequence), of Epitope III (based on amino acids 52-62 of that sequence), or of Epitope IV (based on amino acids 62 through 72 of that sequence with a C-terminal Pro). Vaccinal and pharmaceutical compns. can contain one or more such peptides associated with carrier proteins, in multiple antigenic peptides or as part of recombinant proteins. Various combinations of the Epitope I through IV peptides can provide other compns. useful in eliciting anti-Tat antibodies which cross-react with multiple strains and variants of HIV-1 Tat protein. Vaccinal and pharmaceutical compns. can contain the antibodies induced by the peptide

comps. for use in passive therapy. Diagnostic comps. and uses are described for assessing the immune status of vaccinated patients.

IT 123251-89-8

RL: PRP (Properties)

(unclaimed sequence; methods and compns. for impairing multiplication of HIV-1)

IT 123251-89-8

RL: PRP (Properties)

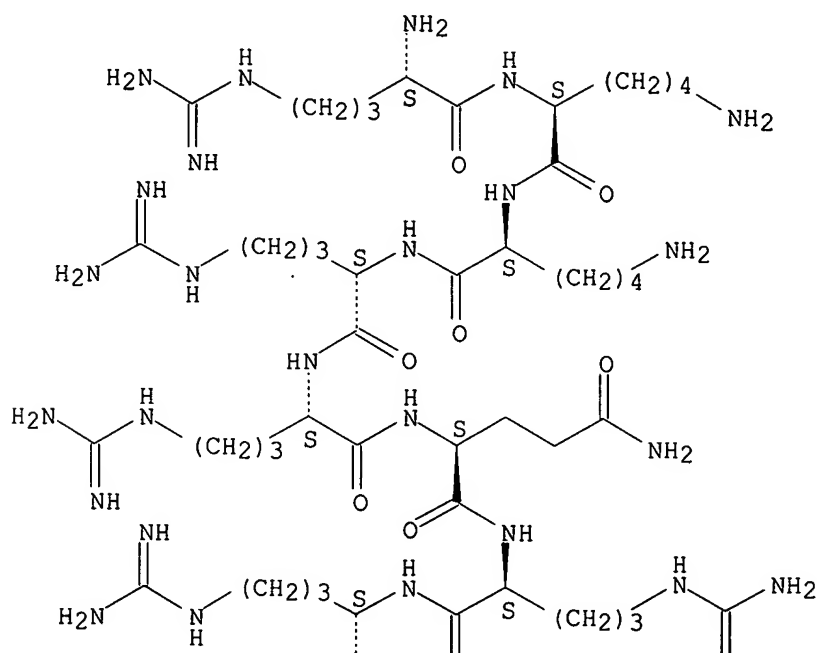
(unclaimed sequence; methods and compns. for impairing multiplication of HIV-1)

RN 123251-89-8 HCAPLUS

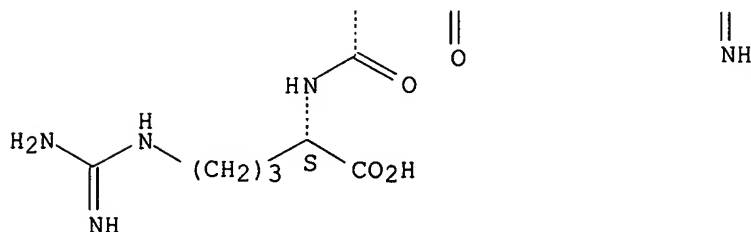
CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminy-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|

jan delaval - 7 september 2006

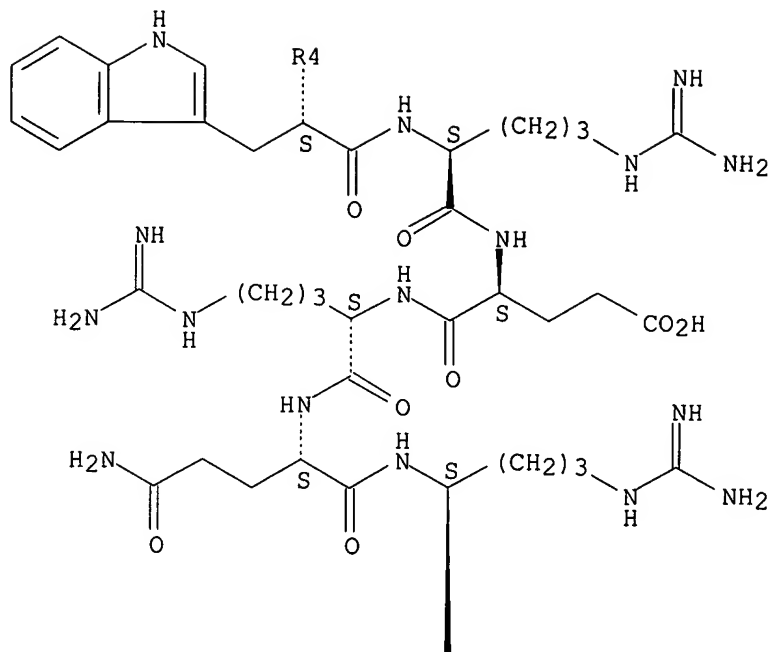
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|---------------|------|-----|------|----------------------|---------|
| Aldovini, A | 1986 | 83 | 6672 | Proc Natl Acad Sci U | HCAPLUS |
| Anon | 1987 | | | WO 8702989 | HCAPLUS |
| Anon | 1987 | | | WO 8702989 | HCAPLUS |
| Anon | 1991 | | | WO 9109958 | HCAPLUS |
| Anon | 1991 | | | WO 9110453 | HCAPLUS |
| Anon | 1992 | | | WO 9207871 | HCAPLUS |
| Anon | 1992 | | | WO 9214755 | HCAPLUS |
| Anon | 1995 | | | WO 9531999 | HCAPLUS |
| Anon | 1990 | | 602 | Webster's Ninth New | |
| Baumberger, C | 1993 | 7 | S59 | AIDS | |
| Brake, D | 1990 | 64 | 962 | J Virol | HCAPLUS |
| Brake, D | 1990 | 64 | 962 | J of Virology | HCAPLUS |
| Cantin | 1992 | | | US 5110802 | HCAPLUS |
| Clerici, M | 1994 | 8 | 1391 | AIDS | MEDLINE |
| Coombs, R | 1996 | 174 | 704 | J Infect Dis | MEDLINE |
| Daniel, M | 1992 | 258 | 1938 | Science | HCAPLUS |
| Dykes | 1993 | | | US 5238822 | HCAPLUS |
| Edwards | 1992 | | | US 5158877 | HCAPLUS |
| Fawell, S | 1994 | 91 | 664 | Proc Natl Acad Sci U | HCAPLUS |
| Frankel | 1997 | | | US 5674980 | HCAPLUS |
| Frankel, A | 1989 | 86 | 7397 | Proc Natl Acad Sci U | HCAPLUS |
| Gaynor | 1997 | | | US 5597895 | HCAPLUS |
| Goldstein, G | 1996 | 2 | 960 | Nature Medicine | HCAPLUS |
| Harlow | 1988 | | 96 | Antibodies, a labora | |
| Haynes, B | 1993 | 260 | 1279 | Science | MEDLINE |
| Krone, W | 1988 | 26 | 261 | J Med Virol | HCAPLUS |
| Kusumi, K | 1992 | 66 | 875 | J Virol | HCAPLUS |
| Larder, B | 1989 | 243 | 1731 | Science | HCAPLUS |
| Lee, T | 1994 | 7 | 381 | J Acq Imm Def Synd | MEDLINE |
| Letvin, N | 1993 | 329 | 1400 | N Engl J Med | MEDLINE |
| Li, C | 1997 | 94 | 8116 | Proc Natl Acad Sci U | HCAPLUS |
| Mann, D | 1991 | 10 | 1733 | EMBO J | HCAPLUS |
| Mannino | 1989 | | | US 4871488 | HCAPLUS |
| McPhee, D | 1988 | 233 | 393 | FEBS Letters | HCAPLUS |
| Mellors, J | 1996 | 272 | 1167 | Science | HCAPLUS |
| Meyerhans, A | 1989 | 58 | 901 | Cell | HCAPLUS |
| Osborn, J | 1995 | 9 | 26 | J Acq Imm Def Syndr | MEDLINE |
| Paul, W | 1995 | 82 | 177 | Cell | HCAPLUS |
| Preston, B | 1988 | 242 | 1168 | Science | HCAPLUS |
| Re, M | 1995 | 10 | 408 | J Acq Imm Def Synd H | HCAPLUS |
| Roberts, J | 1988 | 242 | 1171 | Science | HCAPLUS |
| Rodman | 1997 | | | US 5606026 | HCAPLUS |
| Saag, M | 1993 | 329 | 1065 | N Engl J Med | MEDLINE |
| Saag, M | 1996 | 2 | 625 | Nature Medicine | HCAPLUS |
| Saksela, K | 1994 | 91 | 1104 | Proc Natl Acad Sci U | HCAPLUS |
| Sande, M | 1993 | 270 | 2583 | JAMA | MEDLINE |
| Seligmann, M | 1994 | 343 | 871 | Lancet | |
| Steinaa, L | 1994 | 139 | 263 | Arch Virol | HCAPLUS |
| Suzue | 1996 | 156 | 873 | J Immun | HCAPLUS |
| Suzue, K | 1996 | 156 | 873 | J Immunol | HCAPLUS |
| Tam, J | 1988 | 85 | 5409 | Proc Natl Acad Sci U | HCAPLUS |
| Tindall, B | 1991 | 5 | 1 | AIDS | MEDLINE |
| Wain-Hobson | 1991 | | | US 5019510 | HCAPLUS |
| Welles, S | 1996 | 174 | 696 | J Infect Dis | MEDLINE |
| Wolinsky, S | 1996 | 272 | 537 | Science | HCAPLUS |
| Zauli, G | 1995 | 10 | 306 | J Acq Imm Def Synd H | HCAPLUS |

L59 ANSWER 47 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
AN 2000:808224 HCAPLUS

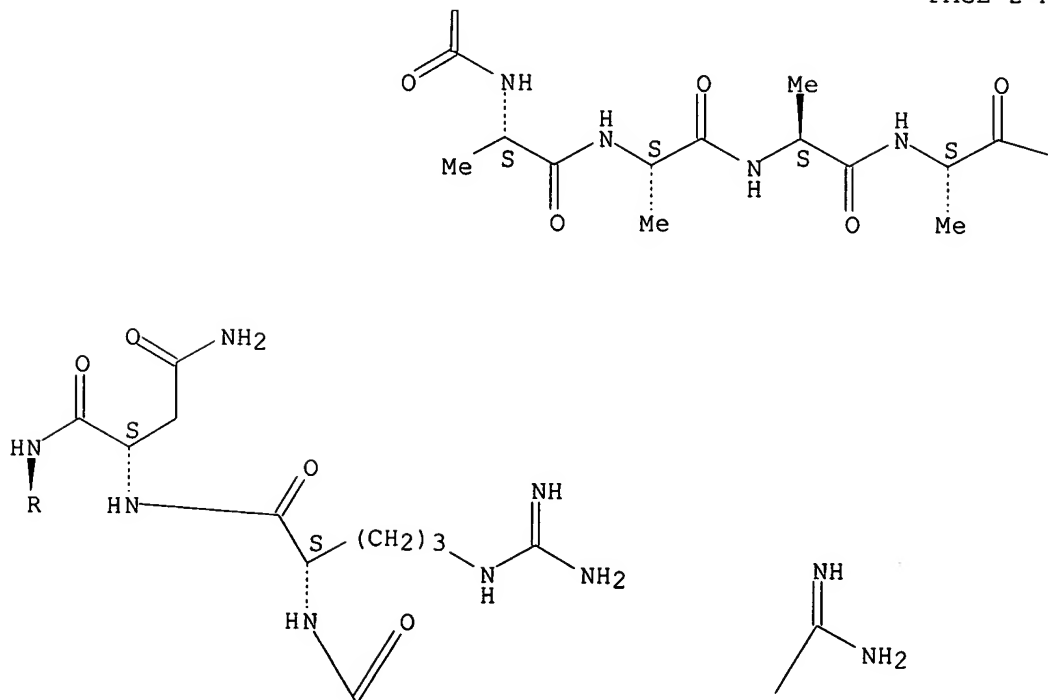
DN 134:86468
TI Guanidinoglycosides: A Novel Family of RNA Ligands
AU Luedtke, Nathan W.; Baker, Tracy J.; Goodman, Murray; Tor, Yitzhak
CS Department of Chemistry and Biochemistry, University of California, San Diego, La Jolla, CA, 92093-0358, USA
SO Journal of the American Chemical Society (2000), 122(48), 12035-12036
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 134:86468
AB The authors reported the preparation of guanidinoglycosides, in which the amine groups of natural aminoglycosides were converted into guanidinium groups by treatment with (Boc-NH)2C:NSO2CF3 [BOC = (H3C)3OC(O)], a new guanidinylation reagent. Using the HIV-1 Rev-REE interaction, the effect on RNA binding and potential antiviral activity of guanidinylated compds. was evaluated. Between 5- and 10-fold increases in inhibitory activity were observed for modified kanamycin A, kanamycin B, tobramycin, neomycin B, and paromomycin. A solid-phase method was used to evaluate the RNA specificity of the guanidinylated compds.
IT **317816-45-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of guanidinoglycosides as RNA ligands)
IT **317816-45-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of guanidinoglycosides as RNA ligands)
RN 317816-45-8 HCAPLUS
CN L-Cysteinamide, N-(3-carboxy-1-oxopropyl)-L-threonyl-L-arginyl-L-glutaminyl-L-alanyl-L-arginyl-L-arginyl-L-asparaginyl-L-arginyl-L-arginyl-L-arginyl-L-tryptophyl-L-arginyl-L- α -glutamyl-L-arginyl-L-glutaminyl-L-arginyl-L-alanyl-L-alanyl-L-alanyl-L-alanyl-S-(2-amino-2-oxoethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

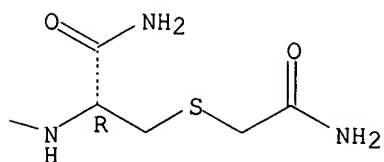
PAGE 1-A



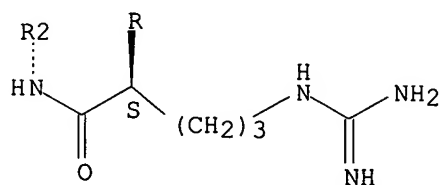
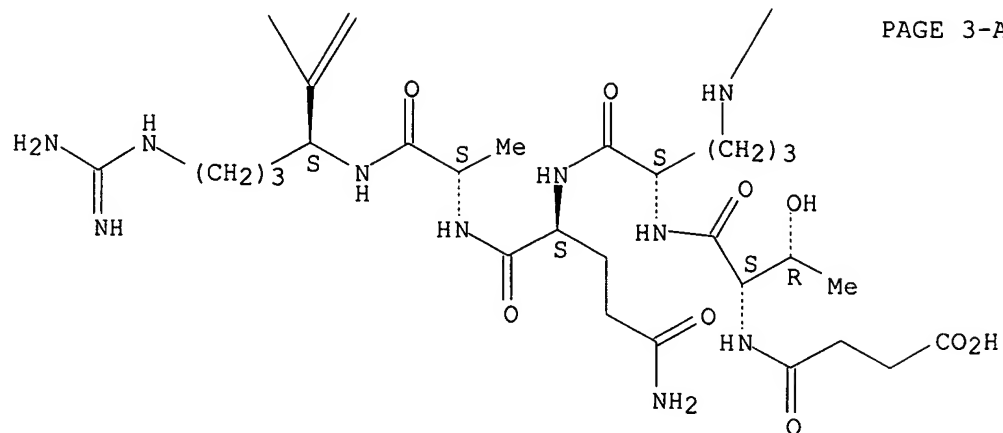
PAGE 2-A



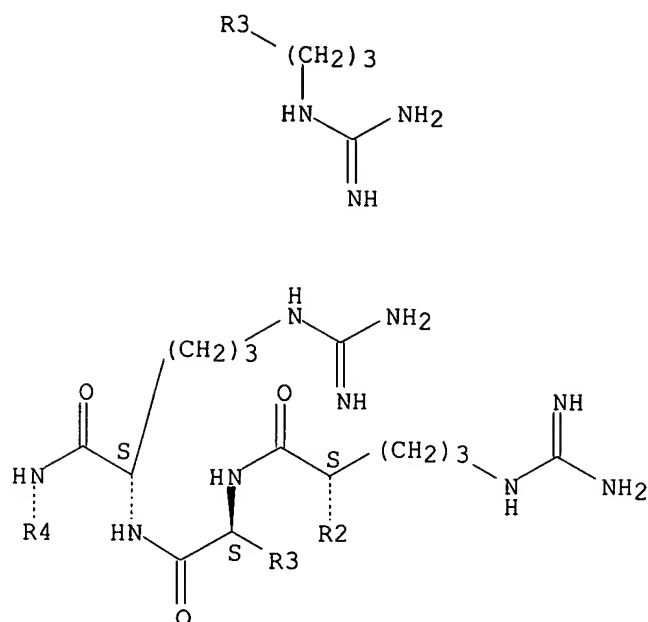
PAGE 2-B



PAGE 3-A



PAGE 4-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Baker, T | 1999 | | 1423 | Synthesis | HCAPLUS |
| Battiste, J | 1996 | 273 | 1547 | Science | HCAPLUS |
| Chen, Q | 1997 | 36 | 11402 | Biochemistry | HCAPLUS |
| de Guzman, R | 1998 | 48 | 181 | Biopolymers | HCAPLUS |
| Feichtinger, K | 1998 | 63 | 18432 | J Org Chem | HCAPLUS |
| Frankel, A | 1998 | 67 | 11 | Annu Rev Biochem | HCAPLUS |
| Griffey, R | 1999 | 96 | 10129 | Proc Natl Acad Sci U | HCAPLUS |
| Hendrix, M | 1997 | 119 | 3641 | J Am Chem Soc | HCAPLUS |
| Holland, S | 1992 | 66 | 3699 | J Virol | HCAPLUS |
| Hope, T | 1999 | 365 | 186 | Arch Biochem Biophys | HCAPLUS |
| Hoshi, H | 1991 | 44 | 680 | J Antibiot | HCAPLUS |
| Kirk, S | 1999 | 7 | 1979 | Bioorg Med Chem | HCAPLUS |
| Kirk, S | 2000 | 122 | 980 | J Am Chem Soc | HCAPLUS |
| Kjems, J | 1992 | 11 | 1119 | EMBO J | HCAPLUS |
| Litovchick, A | 2000 | 39 | 2838 | Biochemistry | HCAPLUS |
| Luedtke, N | 2000 | 39 | 1788 | Angew Chem Intl Ed | HCAPLUS |
| Mei, H | 1995 | 5 | 2755 | Bioorg Med Chem Lett | HCAPLUS |
| Michael, K | 1998 | 4 | 2091 | Chem Eur J | HCAPLUS |
| Moazed, D | 1987 | 327 | 389 | Nature | HCAPLUS |
| Pollard, V | 1998 | 52 | 491 | Annu Rev Microbiol | HCAPLUS |
| Steicher, W | 1983 | 9 | 591 | Drugs Exp Clin Res | |
| Sucheck, S | 2000 | 39 | 1080 | Angew Chem, Int Ed | HCAPLUS |
| Tan, R | 1994 | 33 | 14579 | Biochemistry | HCAPLUS |
| Tan, R | 1993 | 73 | 1031 | Cell | HCAPLUS |
| Tilley, L | 1992 | 89 | 758 | Proc Natl Acad Sci U | |
| Tor, Y | 1998 | 5 | 277 | Chem Biol | HCAPLUS |
| Walter, F | 1999 | 3 | 694 | Curr Opin Chem Biol | HCAPLUS |
| Wang, H | 1997 | 119 | 8734 | J Am Chem Soc | HCAPLUS |
| Weiss, M | 1998 | 48 | 167 | Biopolymers | HCAPLUS |

Zapp, M |1993 |74 |1969 |Cell |HCAPLUS

L59 ANSWER 48 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:34905 HCAPLUS

DN 132:113080

TI Peptides based on the sequence of human lactoferrin and their use in prevention and treatment of infections, inflammations, and tumors

IN Hanson, Lars A.; Mattsby-Baltzer, Inger; Baltzer, Lars; Dolphin, Gunnar T.

PA A+ Science Invest AB, Swed.

SO PCT Int. Appl., 102 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 2000001730 | A1 | 20000113 | WO 1999-SE1230 | 19990706 <-- |
| | W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2333306 | AA | 20000113 | CA 1999-2333306 | 19990706 <-- |
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| | AU 752640 | B2 | 20020926 | | |
| | EP 1095061 | A1 | 20010502 | EP 1999-935241 | 19990706 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 2002519438 | T2 | 20020702 | JP 2000-558131 | 19990706 <-- |
| | NZ 509622 | A | 20030530 | NZ 1999-509622 | 19990706 <-- |
| PRAI | SE 1998-2441 | A | 19980706 | <-- | |
| | SE 1998-2562 | A | 19980717 | <-- | |
| | SE 1998-4614 | A | 19981229 | <-- | |
| | WO 1999-SE1230 | W | 19990706 | <-- | |

OS MARPAT 132:113080

AB The invention relates to new peptides formed of at least seven subsequent amino acids of the amino acids in position 12-40, counted from the N-terminal end, in the sequence constituting human lactoferrin, and preferably modifications thereof. The invention also relates to medicinal products comprising such peptides, especially intended for treatment and prevention of infections, inflammations and tumors. Furthermore, the invention relates to food stuff, e.g. infant formula food, comprising the above mentioned peptides.

IT 254433-70-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(peptides based on the sequence of human lactoferrin and their use in prevention and treatment of infections, inflammations, and tumors)

IT 254433-70-0P

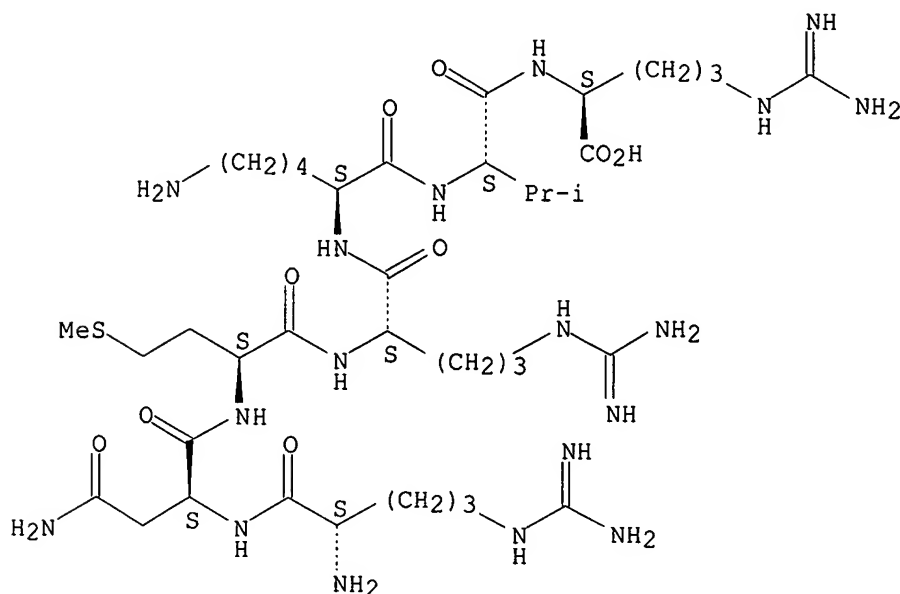
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(peptides based on the sequence of human lactoferrin and their use in

prevention and treatment of infections, inflammations, and tumors)

RN 254433-70-0 HCAPLUS

L-Arginine, L-arginyl-L-asparaginyl-L-methionyl-L-arginyl-L-lysyl-L-valyl-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Chapple, D | 1998 | 66 | 2434 | Infection and Immuni | HCAPLUS |
| Holdingbolaget Vid Gote | 1998 | | | WO 9806425 A1 | HCAPLUS |
| Koga, Y | 1996 | | | JP 08-073499 A2 | HCAPLUS |
| Morinaga Milk Industry | 1995 | | | JP 07-145196 A2 | HCAPLUS |
| Morinaga Milk Industry | 1995 | | | JP 07-274970 A2 | HCAPLUS |
| Morinaga Milk Industry | 1995 | | | JP 07-309771 A2 | HCAPLUS |
| Morinaga Milk Industry | 1996 | | | JP 08-143468 A2 | HCAPLUS |
| Morinaga Milk Industry | 1998 | | | WO 9806424 A1 | HCAPLUS |
| Morinaga Milk Industry | 1997 | | | JP 09-165342 A2 | HCAPLUS |
| Odell, E | 1996 | 382 | 175 | FEBS Letters | HCAPLUS |
| Senju Pharma Co | 1996 | | | JP 08-040925 A2 | HCAPLUS |
| Tomita, M | 1994 | | | US 5304633 A | HCAPLUS |
| Yamamoto, N | 1996 | | | US 5565425 A | HCAPLUS |

L59 ANSWER 49 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:811095 HCAPLUS

DN 132:44975

| | |
|----|------------------------------|
| TI | Modulating platelet function |
|----|------------------------------|

IN Luster, Andrew D.; Abi-Younes, Sylvie

PA The General Hospital Corporation, USA

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.

KIND

DATE _____

APPLICATION NO.

DATE _____

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PI  WO 9965507      A1    19991223      WO 1999-US13851      19990618 <--
      W: AU, CA, JP, MX
      RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
        PT, SE
      AU 9946968      A1    20000105      AU 1999-46968      19990618 <--
      US 2001033841    A1    20011025      US 2001-804606      20010312 <--
PRAI US 1998-89970P    P     19980619    <--
      US 1999-336414    B1    19990618    <--
      WO 1999-US13851    W     19990618    <--
AB   Disclosed herein is a method of identifying a compound which affects the
      interaction between stromal cell derived factor-1 (SDF-1) and platelets,
      comprising the steps of: (a) contacting SDF-1 with platelets in the
      presence of a test compound in a test sample; (b) contacting SDF-1 with
      platelets in the absence of a test compound in a control sample; (c)
      measuring the SDF-1 effect in said test and said control samples; and (d)
      identifying compds. which increase or decrease said SDF-1 effect in the
      test sample compared to the control sample. Also disclosed is a method of
      treating a patient with a vascular disease by administering an inhibitor
      of the interaction between SDF-1 and platelets, in an amount effective to
      reduce the symptoms of said disease. Also disclosed is a method of
      stimulating the interaction between SDF-1 and platelets, as well as
      methods to identify compds. that modulate the above interaction.
IT   153127-49-2, ALX40-4C
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
      (Uses)
          (modulating platelet function by interaction with stromal cell-derived
          factor-1 and CXCR4 and therapeutic application)
IT   153127-49-2, ALX40-4C
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
      (Uses)
          (modulating platelet function by interaction with stromal cell-derived
          factor-1 and CXCR4 and therapeutic application)
RN   153127-49-2 HCAPLUS
CN   D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-
      arginyl-D-arginyl-D-arginyl-D-arginyl-, nonaacetate (9CI) (CA INDEX NAME)

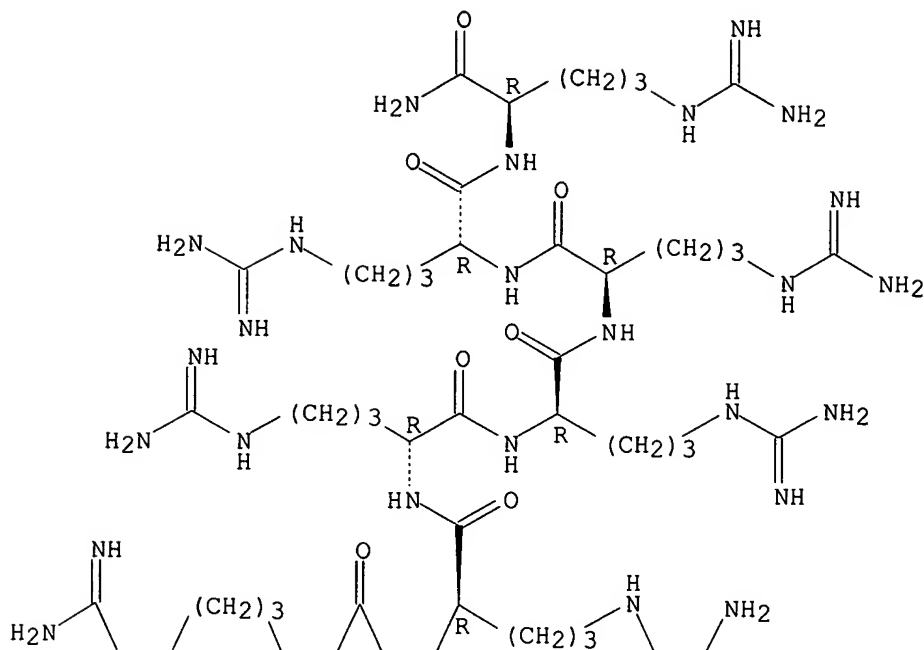
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CRN  143413-49-4
CMF  C56 H113 N37 O10

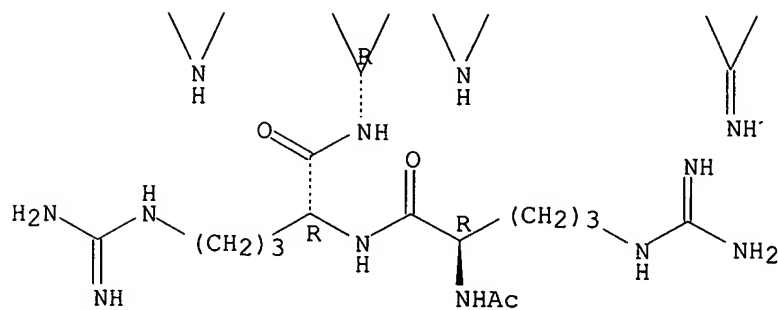
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Absolute stereochemistry.

PAGE 1-A

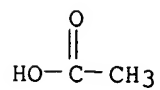


PAGE 2-A



CM 2

CRN 64-19-7
CMF C2 H4 O2



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
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jan delaval - 7 september 2006

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=====+=====+=====+=====+=====+=====+=====
Schols          |1997 |186 |1383 |J Exp Med          |HCAPLUS
The National Institutes|1997 |   |   |WO 9728258 A1     |HCAPLUS
The United States of Am|1998 |   |   |WO 9809642 A2     |HCAPLUS

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L59 ANSWER 50 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:634870 HCAPLUS

DN 132:48807

TI The Role of Positively Charged Residues in CXCR4 Recognition Probed with Synthetic Peptides

AU Luo, Zhaowen; Zhou, Naiming; Luo, Jiansong; Hall, James W.; Huang, Ziwei

CS Kimmel Cancer Institute, Jefferson Medical College, Thomas Jefferson University, Philadelphia, PA, 19107, USA

SO Biochemical and Biophysical Research Communications (1999), 263(3), 691-695

CODEN: BBRCA9; ISSN: 0006-291X

PB Academic Press

DT Journal

LA English

AB A high pos. charge is the common characteristic shared by the β -sheet region of stromal cell-derived factor-1 (SDF-1) and CXCR4 antagonists such as ALX40-4C consisting of nine D-arginines. This raises the question that the pos. charged residues may play a role in recognition of CXCR4. To test this hypothesis, two studies were carried out using synthetic peptides. In the first study, peptide analogs possessing amino acid sequences from both the N-terminus and the β -sheet region of SDF-1 were used as models to study the functional role of the β -sheet region of SDF-1. The attachment of pos. charged residues to the N-terminal peptide sequence of SDF-1 was found to enhance the ability of the peptides in CXCR4 binding and inhibiting CXCR4-mediated T-tropic HIV-1 entry. In the second study, two peptides containing nine arginines and the N-terminal signal sequence of SDF-1 were used as models to study the receptor binding mechanism of CXCR4 antagonists of high pos. charges such as ALX40-4C. One peptide did not show signaling activity as indicated by the lack of calcium influx while another peptide induced unusual calcium influx distinct from that induced by the SDF-1 N-terminal peptide. In addition, the signal induced by the SDF-1 N-terminal peptide was inhibited by ALX40-4C. Therefore, the first study provides exptl. support for the role of the highly pos. β -sheet region of SDF-1 in CXCR4 binding. The second study suggests that the binding site of ALX40-4C in CXCR4 may partially overlap with that of the SDF-1 N-terminal peptide. Both findings should be valuable for the design of SDF-1 agonists and antagonists. (c) 1999 Academic Press.

IT 143413-49-4

RL: PRP (Properties)

(peptide analogs of β -sheet region of stromal cell-derived factor-1 and CXCR4 antagonist to probe role of pos. charged residues in CXCR4 recognition and binding)

IT 143413-49-4

RL: PRP (Properties)

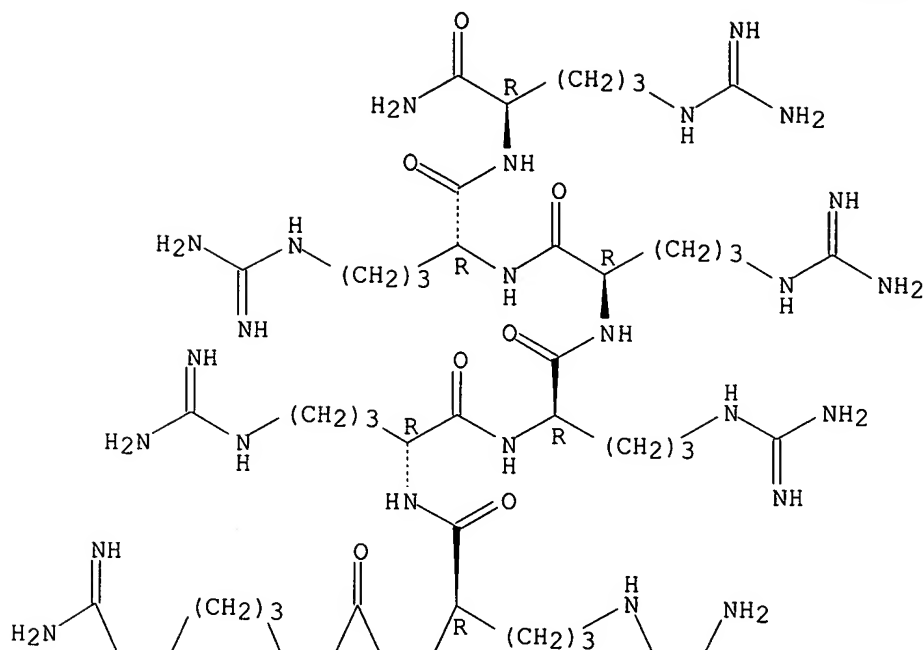
(peptide analogs of β -sheet region of stromal cell-derived factor-1 and CXCR4 antagonist to probe role of pos. charged residues in CXCR4 recognition and binding)

RN 143413-49-4 HCAPLUS

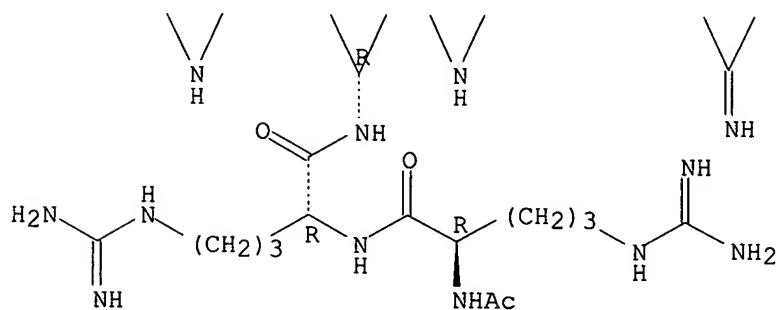
CN D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Aiuti, A | 1997 | 185 | 111 | J Exp Med | HCAPLUS |
| Bleul, C | 1996 | 1382 | 1829 | Nature | HCAPLUS |
| Crump, M | 1997 | 16 | 16996 | EMBO J | HCAPLUS |
| Dealwis, C | 1998 | 195 | 16941 | Proc Natl Acad Sci U | HCAPLUS |
| Doranz, B | 1996 | 185 | 1149 | Cell | HCAPLUS |
| Doranz, B | 1997 | 186 | 1395 | J Exp Med | HCAPLUS |
| Doranz, B | 1997 | 171 | 16305 | J Virol | HCAPLUS |
| Endres, M | 1996 | 187 | 1745 | Cell | HCAPLUS |
| Feng, Y | 1996 | 1272 | 1872 | Science | HCAPLUS |
| Heveker, N | 1998 | 18 | 1369 | Curr Biol | HCAPLUS |
| Li, S | 1998 | 1273 | 116442 | J Biol Chem | HCAPLUS |

| | | | | | |
|-------------|------|-----|-------|------------------|---------|
| Luo, Z | 1997 | 10 | 1039 | Protein Eng | HCAPLUS |
| Murakami, T | 1997 | 186 | 1389 | J Exp Med | MEDLINE |
| Rucker, J | 1997 | 288 | 118 | Methods Enzymol | HCAPLUS |
| Satoh, T | 1997 | 272 | 12175 | J Biol Chem | HCAPLUS |
| Schols, D | 1997 | 186 | 1383 | J Exp Med | HCAPLUS |
| Wells, T | 1996 | 59 | 53 | J Leukocyte Biol | HCAPLUS |

L59 ANSWER 51 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:515617 HCAPLUS

DN 131:308003

TI Selective cleavage of the HIV-1 TAR-RNA with a peptide-cyclen
conjugate

AU Michaelis, Katrin; Kalesse, Markus

CS Institut fur Organische Chemie der Universitat, Hannover, D-30167, Germany

SO Angewandte Chemie, International Edition (1999), 38(15),
2243-2245

CODEN: ACIEF5; ISSN: 1433-7851

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

AB A peptide-cyclen **conjugate** was prepared by solid-phase synthesis that showed the ability to cleave the TAR-RNA of HIV-1 in the absence of metal ions. Surprisingly, addition of the metal ions Eu(III) or Zn(II) seemed to interfere with the cleavage reaction. No cleavage was observed in the presence of peptides lacking the cyclen moiety.

IT 123251-89-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and selective cleavage of the HIV-1 TAR-RNA with a peptide-cyclen **conjugate**)

IT 123251-89-8P

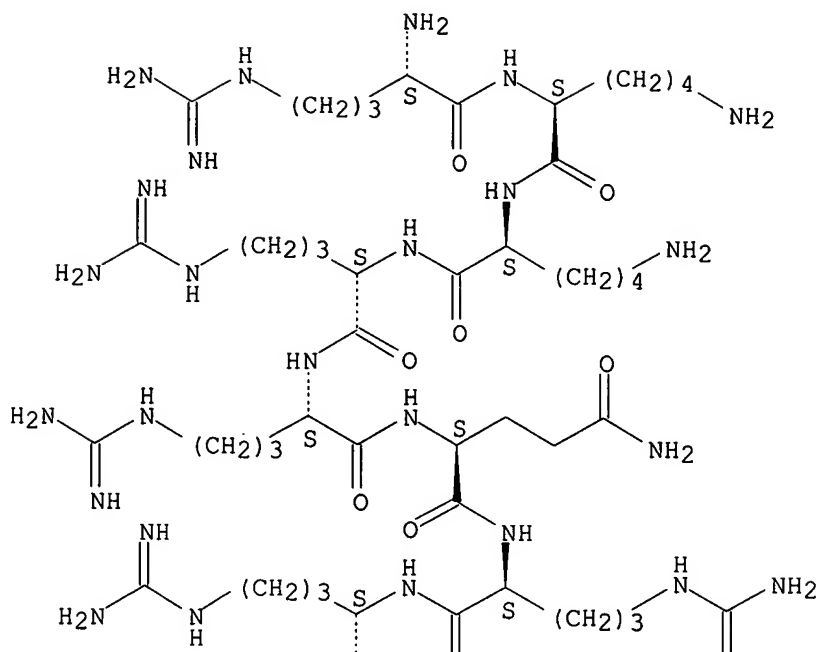
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and selective cleavage of the HIV-1 TAR-RNA with a peptide-cyclen **conjugate**)

RN 123251-89-8 HCAPLUS

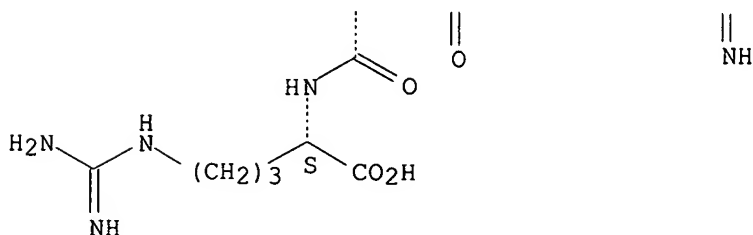
CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminy-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Aboul-Ela, F | 1995 | 253 | 313 | J Mol Biol | HCAPLUS |
| Calnan, B | 1991 | 252 | 1167 | Science | HCAPLUS |
| Chang, K | 1977 | 99 | 3794 | J Am Chem Soc | HCAPLUS |
| Churcher, M | 1993 | 230 | 90 | J Mol Biol | HCAPLUS |
| Delling, U | 1992 | 65 | 7012 | J Virol | |
| Dingwall, C | 1990 | 9 | 4145 | EMBO J | HCAPLUS |
| Endo, M | 1996 | 118 | 5478 | J Am Chem Soc | HCAPLUS |
| Farrow, M | 1998 | 37 | 3096 | Biochemistry | HCAPLUS |
| Frankel, A | 1992 | 1 | 1539 | Protein Sci | HCAPLUS |
| Hall, J | 1994 | 1 | 185 | Chem Biol | HCAPLUS |
| Hamy, F | 1993 | 230 | 111 | J Mol Biol | HCAPLUS |
| Kimura, E | 1997 | 119 | 3068 | J Am Chem Soc | HCAPLUS |
| Komijama, M | 1997 | 62 | 2155 | J Org Chem | |
| Komiyama, M | 1995 | 77 | | J Chem Soc Chem Comm | |

| | | | | | |
|------------|------|-----|------|----------------------|---------|
| Kurz, K | 1998 | 32 | 94 | Chem Unserer Zeit | HCAPLUS |
| Kurz, K | 1996 | 79 | 1967 | Helv Chim Acta | HCAPLUS |
| Matsuda, S | 1998 | 110 | 3477 | Angew Chem | |
| Matsuda, S | 1998 | 37 | 3284 | Angew Chem Int Ed | HCAPLUS |
| Oivanen, M | 1998 | 98 | 961 | Chem Rev | HCAPLUS |
| Puglisi, J | 1992 | 257 | 76 | Science | HCAPLUS |
| Sharp, P | 1989 | 59 | 229 | Cell | HCAPLUS |
| Weeks, K | 1990 | 249 | 1281 | Science | HCAPLUS |
| Yashiro, M | 1995 | | 1793 | J Chem Soc Chem Comm | HCAPLUS |

L59 ANSWER 52 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:38190 HCAPLUS

DN 130:208695

TI The carboxyl terminus of interferon- γ contains a functional polybasic nuclear localization sequence

AU Subramaniam, Prem S.; Mujtaba, Mustafa G.; Paddy, Michael R.; Johnson, Howard M.

CS Department of Microbiology and Cell Science, University of Florida, Gainesville, FL, 32611, USA

SO Journal of Biological Chemistry (1999), 274(1), 403-407
CODEN: JBCHA3; ISSN: 0021-9258

PB American Society for Biochemistry and Molecular Biology

DT Journal

LA English

AB Cytokines such as interferon- γ (IFN- γ), which utilize the well studied JAK/STAT pathway for nuclear signal transduction, are themselves translocated to the nucleus. The exact mechanism for the nuclear import of IFN- γ or the functional role of the nuclear translocation of ligand in signal transduction is unknown. The authors show here that nuclear localization of IFN- γ is driven by a simple polybasic nuclear localization sequence (NLS) in its C terminus, as verified by its ability to specify nuclear import of a heterologous protein allophycocyanin (APC) in standard import assays in digitonin-permeabilized cells. Similar to other nuclear import signals, the authors show that a peptide representing amino acids 95-132 of IFN- γ [IFN- γ (95-132)] containing the polybasic sequence 126RKRRSR132 was capable of specifying nuclear uptake of the autofluorescent protein, APC, in an energy-dependent fashion that required both ATP and GTP. Nuclear import was abolished when the above polybasic sequence was deleted. Moreover, deletions immediately N-terminal of this sequence did not affect the nuclear import. Thus, the sequence 126RKRRSR132 is necessary and sufficient for nuclear localization. Furthermore, nuclear import was strongly blocked by competition with the cognate peptide IFN- γ (95-132) but not the peptide IFN- γ (95-125), which is deleted in the polybasic sequence, further confirming that the NLS properties were contained in this sequence. A peptide containing the prototypical polybasic NLS sequence of the SV40 large T-antigen also inhibited the nuclear import mediated by IFN- γ (95-132). This observation suggests that the NLS in IFN- γ may function through the components of the Ran/importin pathway utilized by the SV40 T-NLS. Finally, the authors show that intact IFN- γ , when coupled to APC, was also able to mediate its nuclear import. Again, nuclear import was blocked by the peptide IFN- γ (95-132) and the SV40 T-NLS peptide, suggesting that intact IFN- γ was also transported into the nucleus through the Ran/importin pathway. Previous studies have suggested a direct intracellular role for IFN- γ in the induction of its biol. activities. Based on the data here, it is suggested that a key intracellular site of interaction of IFN- γ is the one with the nuclear transport mechanism that occurs via the NLS in the C terminus of IFN- γ .

IT 220997-71-7
 RL: PRP (Properties)
 (C terminus of interferon- γ containing functional polybasic nuclear localization sequence)

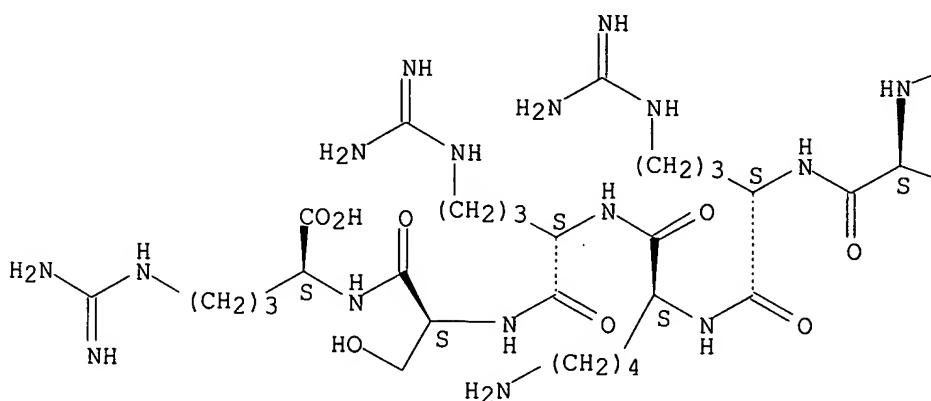
IT 220997-71-7
 RL: PRP (Properties)
 (C terminus of interferon- γ containing functional polybasic nuclear localization sequence)

RN 220997-71-7 HCAPLUS

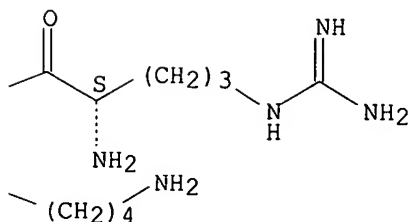
CN L-Arginine, L-arginyl-L-lysyl-L-arginyl-L-lysyl-L-arginyl-L-seryl- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



RETABLE

| Referenced Author (RAU) | Year (RPY) | VOL (RVL) | PG (RPG) | Referenced Work (RWK) | Referenced File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Adam, S | 1992 | 219 | 97 | Methods Enzymol | HCAPLUS |
| Arakawa, T | 1989 | 4 | 217 | Drug Design Deliv | HCAPLUS |
| Arakawa, T | 1986 | 261 | 8534 | J Biol Chem | HCAPLUS |
| Bader, T | 1994 | 91 | 11831 | Proc Natl Acad Sci U | HCAPLUS |
| Dobeli, H | 1988 | 7 | 199 | J Biotechnol | |
| Fidler, I | 1985 | 135 | 4289 | J Immunol | HCAPLUS |
| Gorlich, D | 1996 | 271 | 1513 | Science | HCAPLUS |
| Green, M | 1998 | 243 | 170 | Biochem Biophys Res | HCAPLUS |
| Jans, D | 1998 | 20 | 400 | BioEssays | MEDLINE |
| Jans, D | 1994 | 8 | 841 | FASEB J | HCAPLUS |

| | | | | | |
|---------------|------|-----|-------|----------------------|---------|
| Jans, D | 1997 | 406 | 315 | FEBS Lett | HCAPLUS |
| Jans, D | 1997 | 406 | 368 | FEBS Lett | |
| Johnson, H | 1998 | 244 | 607 | Biochem Biophys Res | HCAPLUS |
| Kushnaryov, V | 1988 | 157 | 109 | Biochem Biophys Res | HCAPLUS |
| Leaman, D | 1996 | 10 | 1578 | FASEB J | HCAPLUS |
| Lundell, D | 1991 | 4 | 335 | Prot Eng | HCAPLUS |
| Macdonald, H | 1986 | 138 | 254 | Biochem Biophys Res | HCAPLUS |
| Newmeyer, D | 1988 | 52 | 641 | Cell | HCAPLUS |
| Rutherford, M | 1996 | 16 | 507 | J Interferon Cytokin | HCAPLUS |
| Sanceau, J | 1987 | 84 | 2906 | Proc Natl Acad Sci U | HCAPLUS |
| Sekimoto, T | 1997 | 16 | 7067 | EMBO J | HCAPLUS |
| Sekimoto, T | 1996 | 271 | 31017 | J Biol Chem | HCAPLUS |
| Slodowski, O | 1991 | 202 | 1133 | Eur J Biochem | HCAPLUS |
| Smith, M | 1990 | 144 | 1777 | J Immunol | HCAPLUS |
| Szente, B | 1994 | 201 | 1645 | Biochem Biophys Res | |
| Szente, B | 1994 | 201 | 215 | Biochem Biophys Res | HCAPLUS |
| Szente, B | 1995 | 155 | 5617 | J Immunol | HCAPLUS |
| Szente, B | 1996 | 16 | 813 | J Interferon Cytokin | HCAPLUS |
| Wessendorf, J | 1993 | 268 | 22100 | J Biol Chem | HCAPLUS |
| Wetzel, R | 1990 | 3 | 611 | Prot Eng | HCAPLUS |

L59 ANSWER 53 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:709091 HCAPLUS

DN 129:326081

TI Inhibition of HIV-1 replication by a Tat RNA-binding domain peptide analog

IN Wang, Jihong; Stein, Stanley; Leibowitz, Michael J.; Rabson, Arnold B.

PA The University of Medicine and Dentistry of New Jersey, USA

SO PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|--------------|
| | ----- | --- | ----- | ----- | ----- |
| PI | WO 9847913 | A2 | 19981029 | WO 1998-US7533 | 19980416 <-- |
| | WO 9847913 | A3 | 19990121 | | |
| | W: AU, CA, JP, MX, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | AU 9869727 | A1 | 19981113 | AU 1998-69727 | 19980416 <-- |
| PRAI | US 1997-844448 | A2 | 19970418 | <-- | |
| | WO 1998-US7533 | W | 19980416 | <-- | |

OS MARPAT 129:326081

AB The peptidic compds., R-Arg-Lys-Lys-Arg-Arg-Gln-Arg-Arg-Arg-X-(biotin)-NH₂ (R carboxylic acid residue; X = cysteine or lysine residue), analogs thereof, and the biol. and pharmaceutically acceptable salts thereof, contain the 9-amino acid sequence from the basic domain of the Tat protein responsible for specific interaction with TAR RNA, or an analog thereof. The cysteine or lysine residue provides an attachment site for biotin which acts as a cellular uptake enhancer. These peptides bind a fragment of TAR RNA (Δ TAR) avidly and specifically, as measured in an electrophoretic gel shift assay. Further, they inhibit tat gene-induced expression of a stably transfected CAT (chloramphenicol acetyl transferase) reporter gene linked to the HIV-1 LTR in a model cell assay, but do not inhibit phorbol ester-induced expression of CAT, thereby demonstrating a Tat-dependent mechanism of inhibition. Inhibition of HIV-1 replication after acute infection of MT2 cells was demonstrated by absence of HIV-induced syncytium formation and cytotoxicity, as well as by suppression of reverse transcriptase production. These results indicate that these peptides are capable of competing with the TAR RNA-binding domain of

Tat protein and thus are useful as therapeutic agents in the treatment of AIDS.

IT **215315-75-6P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(Tat RNA-binding domain peptide analog for inhibition of HIV-1 replication)

IT **215315-79-0**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Tat RNA-binding domain peptide analog for inhibition of HIV-1 replication)

IT **215315-75-6P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

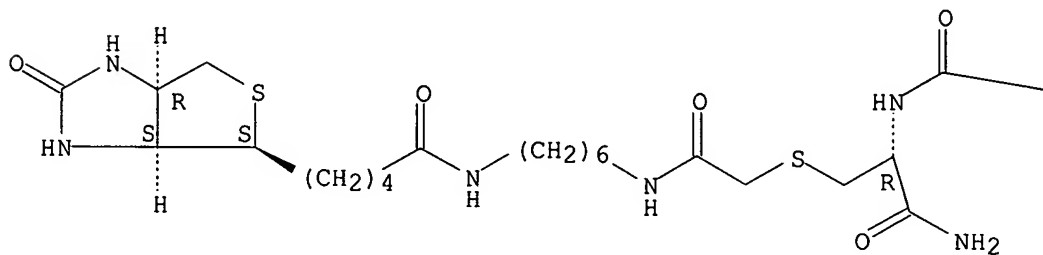
(Tat RNA-binding domain peptide analog for inhibition of HIV-1 replication)

RN 215315-75-6 HCAPLUS

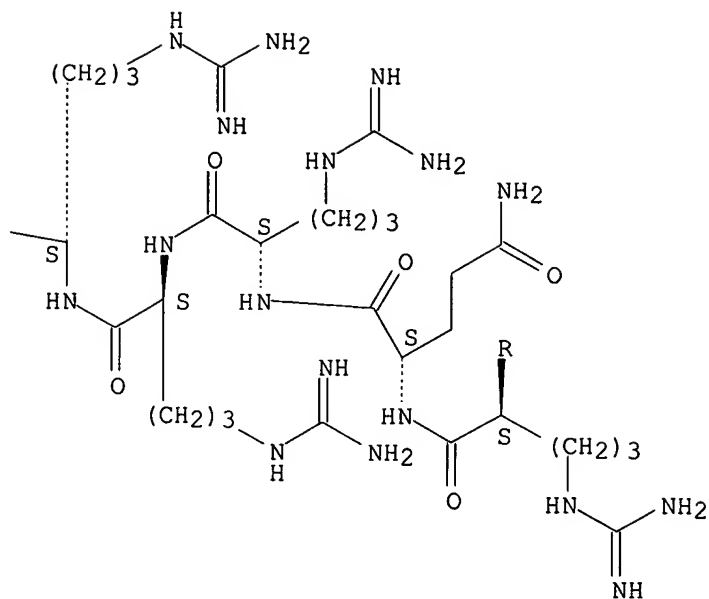
CN L-Cysteinamide, N2-acetyl-L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl-L-arginyl-S-[2-[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]hexyl]amino]-2-oxoethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

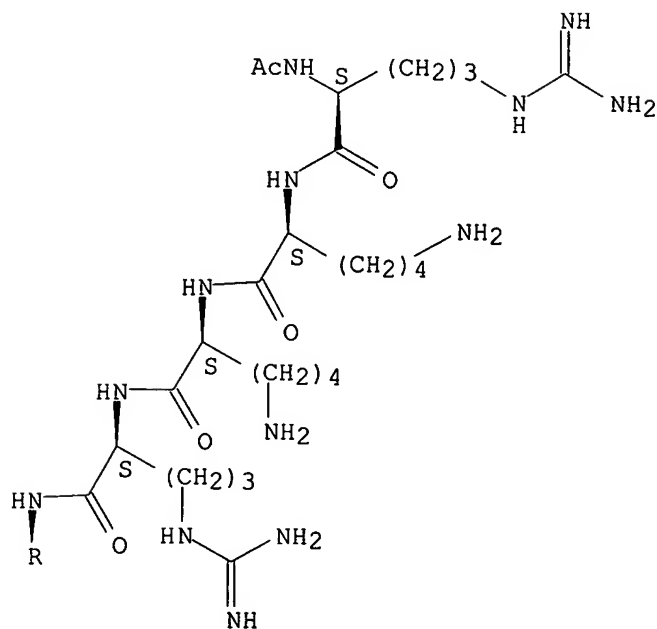
PAGE 1-A



PAGE 1-B



PAGE 2-A

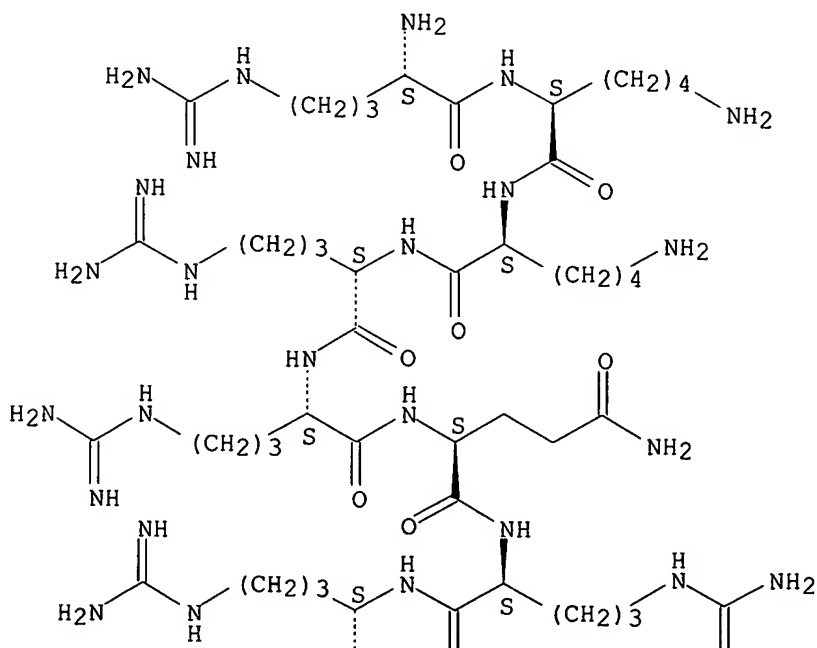


L59 ANSWER 54 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:472464 HCAPLUS
 DN 127:160187
 TI Transport of immunogens into the MHC class I and II pathways by a peptide from HIV tat

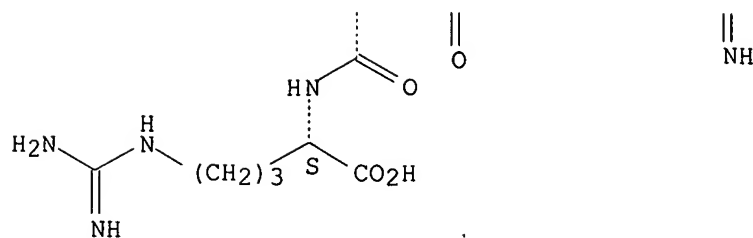
- AU Rathbard, Jonathan; Kim, Dewey; Mitchell, Dennis; Bockstedt, Dirk; Fong, Lawrence; Nolan, Gary; Fathman, C. Garrison; Engleman, Edgar
- CS Department of Medicine, Stanford University School of Medicine, Stanford, CA, 94305, USA
- SO Alfred Benzon Symposium (1997), 40(HLA and Disease: The Molecular Basis), 161-175
CODEN: ABSYB2; ISSN: 0105-3639
- PB Munksgaard
- DT Journal; General Review
- LA English
- AB A review with 26 refs. Fluorescently labeled tat peptide (residues 49-57) enters the cytoplasm and nucleus of all hematopoietic cells with the exception of erythrocytes. When **conjugated** to ovalbumin it allowed the protein to effectively enter MHC class I biosynthetic pathway. Results indicate that tat **conjugation** to protein antigens represents a simple, effective method of generating antigen-specific cytotoxic T cells.
- IT 123251-89-8
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(protein **conjugates**; transport of immunogens into MHC class I and II pathways by peptide from HIV tat)
- IT 123251-89-8
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(protein **conjugates**; transport of immunogens into MHC class I and II pathways by peptide from HIV tat)
- RN 123251-89-8 HCAPLUS
- CN L-Arginine, L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 55 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:665157 HCAPLUS

DN 123:47891

TI Peptides for treatment of cytomegalovirus infection

IN Twist, Michael; Sumner-Smith, Martin

PA Allelix Biopharmaceuticals Inc., Can.

SO PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|--------------|-----------------|--------------|
| PI | WO 9511038 | A1 | 19950427 | WO 1994-CA590 | 19941021 <-- |
| | W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN | | | | |
| | RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2152373 | AA | 19950427 | CA 1994-2152373 | 19941021 <-- |
| | CA 2152373 | C | 19981215 | | |
| | EP 675731 | A1 | 19951011 | EP 1994-930888 | 19941021 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| | AU 685862 | B2 | 19980129 | AU 1994-79876 | 19941021 <-- |
| PRAI | US 1993-139757 | A | 19931022 <-- | | |
| | WO 1994-CA590 | W | 19941021 <-- | | |

AB Described herein are anti-cytomegalovirus (CMV) peptides. In a preferred embodiment, the peptide is acetyl-[D-Arg]9-NH₂ (I). The use of these peptides, either per se or in combination with other anti-CMV compds., is disclosed as an effective method for controlling CMV infection. Anti-CMV activity of I was assessed by a plaque reduction assay. I was also effective in controlling drug-resistant CMV strains.

IT 143413-49-4

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cytomegalovirus infection treatment with peptides and virucides)

IT 143413-49-4

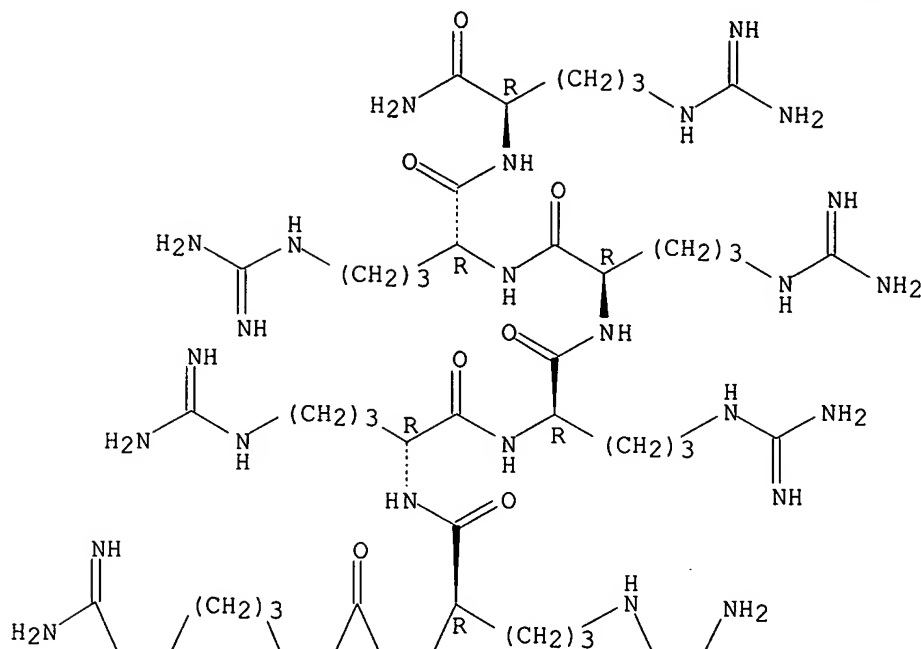
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cytomegalovirus infection treatment with peptides and virucides)

RN 143413-49-4 HCAPLUS

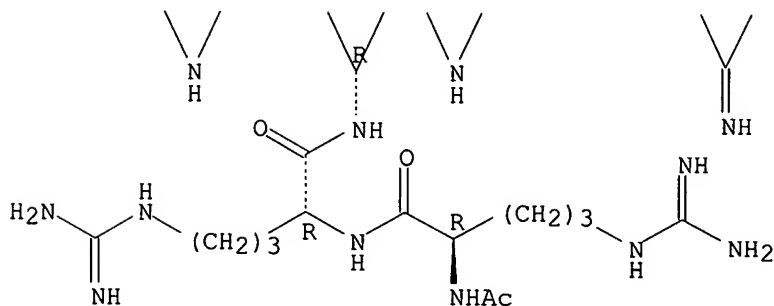
CN D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L59 ANSWER 56 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 1994:280279 HCAPLUS
 DN 120:280279
 TI Intracellular delivery of biochemical agents **conjugated** with
 peptides
 IN Summer-Smith, Martin; Barnett, Richard W.; Reid, Lorne S.; Twist, Michael
 PA Allelix Biopharmaceuticals Inc., Can.
 SO Can. Pat. Appl., 19 pp.
 CODEN: CPXXEB
 DT Patent
 LA English
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|----------|-----------------|--------------|
| CA 2094658 | AA | 19931024 | CA 1993-2094658 | 19930422 <-- |

PRAI US 1992-872396 A 19920423 <--

AB The intracellular delivery of biochem. agents, such as therapeutic peptides and oligonucleotides, is facilitated by a carrier peptide coupled therewith. The carrier peptide consists desirably of pos. charged D-amino acids. Acetyl-[D-Arg]9-NH₂ (I) was prepared by conventional solid phase synthesis using p-methylbenzylhydramine resin as solid support. The uptake of I by cultured HeLa cells after 24 hs was 25.67%.

IT 143413-49-4D, **conjugates** with biochem. agents

153127-44-7D, **conjugates** with biochem. agents

154858-89-6D, **conjugates** with biochem. agents

RL: BIOL (Biological study)

(for intracellular delivery)

IT 143413-49-4D, **conjugates** with biochem. agents

RL: BIOL (Biological study)

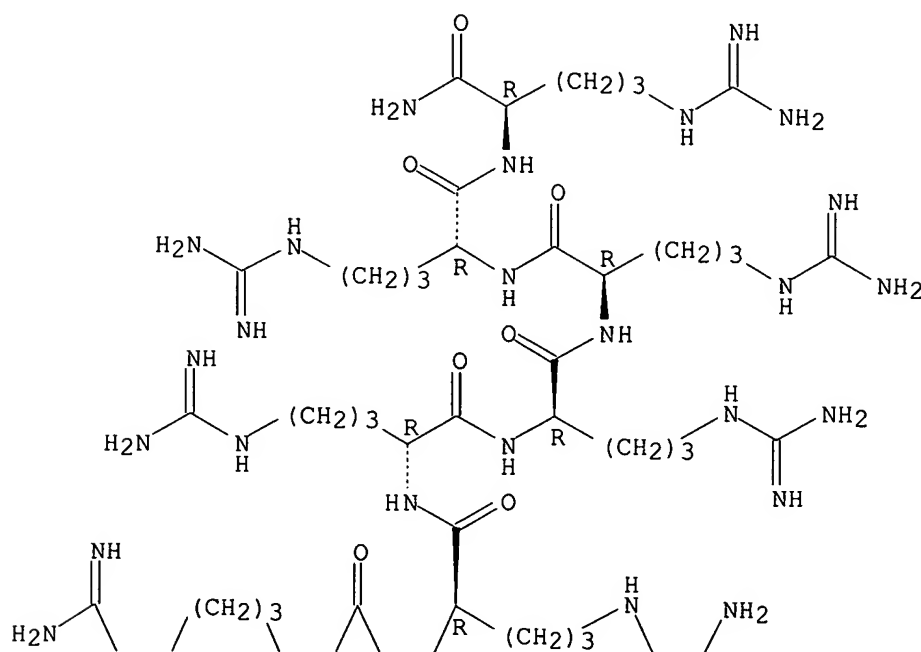
(for intracellular delivery)

RN 143413-49-4 HCAPLUS

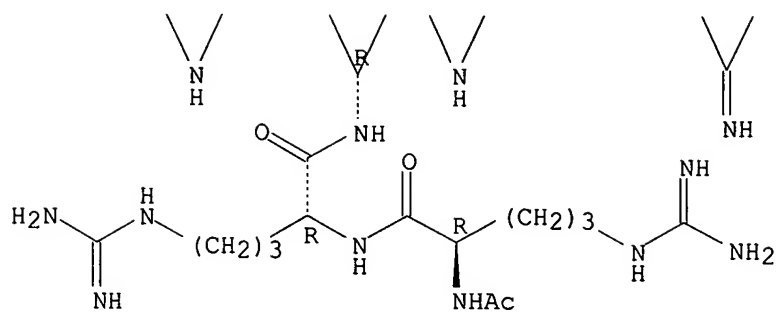
CN D-Argininamide, N2-acetyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl-D-arginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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